SITE INSPECTION (SI) REPORT

For

Mullins Rubber Products, Inc.
Dayton, Montgomery County, Ohio
U.S. EPA ID: OHN000510489

OHIO ENVIRONMENTAL PROTECTION AGENCY
Division of Emergency & Remedial Response
Southwest District Office
401 East Fifth St.
Dayton, Ohio 45402

February 23, 2011

Site Investigation Report

Mullins Rubber
Montgomery County, Ohio

U.S. EPA ID: OHN000510489
8/18/2011

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Ed Gortner, Environmental Supervisor
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Approved by: Date: 8/23/2011

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1.0 EXECUTIVE SUMMARY

The Ohio Environmental Protection Agency (OEPA) Division of Emergency and Remedial Response (DERR) entered into a cooperative agreement with the United States Environmental Protection Agency (U.S. EPA) Region V to conduct a Site Inspection (SI) of the Mullins Rubber Products site (MRP), located in Riverside, Montgomery County, Ohio. The purpose of this report is present the analytical data and determine if a release has occurred at the site.

The work plan for this SI was approved by U.S. EPA on October 5, 2010. Ground water sampling was conducted on November 2 and December 20, 2010. A total of nine samples, including duplicate and background samples, were collected on-site. The samples were analyzed through the U.S EPA Contract Laboratory Program (CLP) and Ohio EPA's contract laboratory for volatile organic compounds (VOCs). VOCs were the only contaminants of concern.

Sample results indicated significant levels of tetrachloroethene (PCE) and lower levels of trichloroethylene (TCE) in several of the on-site ground water monitoring wells. Residential homes and businesses in the immediate area are connected to public water. There may be several potential sources of both PCE and TCE in the vicinity of MRP.

2.0 SITE BACKGROUND

2.1 Site Description

Mullins Rubber Products, Inc. (MRP) is an active manufacturing facility located at 2949 Valley Pike in Riverside, Montgomery County, Ohio. (Figures 1 & 2). The site is located in a mixed industrial and residential area of Riverside. MRP is bordered to the west by a commercial property, to the east by a residence and commercial property, to the north by a commercial distribution facility, and to the south by Valley Pike.

The facility sits on one parcel (Parcel I39002030048) and is comprised of 3.675 acres. Most of the parcel is covered with buildings and asphalt or concrete. There is a small grassy area in the front parking area, a vegetative swale in the northern corner of the site, and a small strip of grass along the back fence line.

The primary product manufactured at MRP is molded heavy-duty truck trailer suspension bushings. Currently, there is one main building and several small storage facilities on site. In addition, there are four production wells used for non-contact cooling water. The primary well is 120 feet deep and produces about 300 gallons of water per minute for 8 hours a day. There are two production wells on standby and the fourth well is damaged and no longer used but remains in place.

There are seven dry wells located at the facility. Five are used for the return of non-contact cooling water and to manage storm water runoff (Figures 3 & 4). These dry wells are considered Class V injection wells under the Ohio Underground Injection Control (UIC) Program. No permits are needed and the wells are properly registered with Ohio EPA. One of the dry wells (DW-2) receives cooling water from the TCE degreasing tanks along with storm water runoff from a nearby storm grate. Three of the dry wells (DW-3, DW-4, and DW-5) handle only non-contact cooling water from the production area rubber mills and are interconnected, so if one fills to capacity, overflow will be diverted to the remaining wells. The remaining well (DW-7) receives storm water runoff. According to information provided by both the facility and UIC, the use of dry wells DW-1 and DW-6 is unknown.

The facility is located approximately 1,350 feet to the north of the Dayton Mad River Well Field protection area and 1,600 feet to the southeast of the Dayton Miami Well Field wellhead protection area. The closest production well is approximately 2,650 feet south of the facility.

2.2 Site History

MRP began operations in 1942 as The Mullins Tire and Rubber Company. The primary operation at that time was retreading used tires. Other names the company used during its history include The Yellow Front Tire Shop and Bill

Mullins Co. Inc.

In 1955, the business expanded from tires into molding different types of rubber products. Beginning in the mid-1960s, the company focused on molding heavy-duty truck trailer suspension bushings, the product line that continues today.

MRP is required to report halogenated solvent usage annually to the Regional Air Pollution Control Agency (RAPCA). After an anonymous source alleged the company was under-reporting the amount of solvents used, the Ohio EPA and RAPCA performed an unannounced inspection on May 14, 2001.

It was determined by RAPCA and Ohio EPA that MRP had under-reported their TCE usage, kept false records and knowingly reported false data from 1995 to 2000. From 1995 to 1999, the combined emissions permit limit was 10,000 pounds per year. Actual emissions were calculated and ranged from 17,679 pounds in 1996 to 38,556 pounds in 1997.

In January of 2004, a seven-count criminal indictment was filed against MRP by the U.S. Attorney's Office in Dayton, Ohio.

Later the same year, William R. Mullins, President of MRP pled guilty to making false statements when reporting airborne discharges of TCE and failing to submit a Title V air permit by the October 1996 deadline. Mr. Mullins was fined, sentenced to home confinement, followed by probation, and ordered to perform 100 hours of community service.

MRP now holds a Clean Air Act Title V operating permit that was issued January 16, 2008. TCE usage limit is a facility-wide rolling 12 month limit of 15.54 tons.

2.3 Site Geology and Hydrogeology

The site overlies the Mad River buried valley aquifer, one of the most productive aquifers in North America. It is part of the U.S. EPA designated Great Miami Buried Valley Sole Source Aquifer system. On a regional scale, the aquifer is comprised of sand and gravel outwash deposits ranging in thickness from 120 to 250 feet. In some locations, inter-bedded clay, silt, and clay-rich till aquitards at varying depths separate the aquifer into an upper and lower zone. The aquitard is present below MRP. In the vicinity of the site, the upper zone is unconfined while the lower portion is semi-confined. According to three Ohio Department of Natural Resources (ODNR) on-site well logs, the subsurface beneath the site is heterogeneous, with outwash being transected by a "blue clay" at varying depths. The clay layer is identified at the primary production well between 51 and 116 feet below ground surface (bgs) and again at 47 to 111 feet bgs at a second but unknown location. Another on-site log identifies blue clay at 25 to 37 feet bgs.

Withdrawn direct push rods at sample location GW-2 were wet at a depth corresponding to 26 feet bgs. Depth to water was reportedly measured down-hole at 25 feet bgs at direct push location GW-5.

Topographic data and regional hydrogeological information from the Mad River Well Field Assessment (Geraghty and Miller, 1987) indicate that ground water flow in the vicinity of Mullins Rubber is south to southwest. The facility is located approximately 1,350 feet north of Dayton's Mad River Wellfield and lies outside the source water protection area five-year time-of-travel (Figure 5). No public water supply wells are located within one mile downgradient (Ohio EPA, GIS public well database).

2.4 Potential VOC Sources

Since MRP is situated in a commercial, light industrial area, there are other likely sources of TCE and PCE in the area. There are several businesses upgradient of MRP in the vicinity of Harshman Road that could be potential PCE sources depending on current or past operations. Harshman Road runs in an east-west direction approximately ¼ mile north-northwest of the site.

3.0 SAMPLING LOCATIONS & DISCUSSION OF RESULTS

3.1 General Discussion

Eight ground water samples and one dry well sample, including background and duplicate samples, were collected during the November 2, 2010 investigation. Due to incorrect production well location information provided by the facility manager during the original sampling event, the production well (GW-7) had to be re-sampled on December 20, 2010. The sample locations can be found on the Sample Location Map (Figure 4). Standard quality assurance and quality control (QA/QC) procedures for site inspection field activities were followed during the investigation. These procedures, including sample collection, packaging and shipping, and equipment decontamination, are documented in the "Quality Assurance Project Plan (QAPP) for Region 5 Superfund Site Inspection activities for Ohio EPA and Ohio EPA Field Standard Operating Procedures."

The November 2, 2010, samples were analyzed by U.S. EPA Contract Laboratory Program (CLP) laboratories. The second production well sample was sent to Microbac Environmental Laboratory -- the Ohio EPA contract laboratory. Because the contaminants of concern are chlorinated solvents, only volatile organic compounds were analyzed.

The sample results are reported in micrograms per liter (ug/L) which is equivalent to parts per billion (ppb). The CLP data were reviewed by U.S.EPA Region 5 for compliance with the Contract Laboratory Program and validated by the Computer-Aided Data Review and Evaluation (CADRE) software package.

The CLP data package, including Form I and narratives, are contained in Appendix B. The data package from Microbac Environmental Laboratory can be found in Appendix C. Significant findings based on these data are summarized in Table 1. Under the Hazard Ranking System (HRS) rule, results are considered significant if they are at least three times the background sample result and above the Contract Required Quantitation Limit (CRQL). The CRQLs can be found in Appendix D.

3.2 Ground Water Samples

A total of eight ground water samples were collected during the SI. Six ground water grab samples were collected using the Geoprobe™ direct-push technology (Geoprobe). Samples GW-1 and GW-2 were collected from a depth of 34 to 38 feet and located up gradient of the manufacturing building. GW-1 and GW-2 served as background samples. GW-3, GW-4 (duplicate), GW-5 and GW-6 are Geoprobe samples taken down gradient of the manufacturing building and were collected from a depth of 38-42 feet.

Sample GW-7 in the CLP laboratory package was thought to be from the production well that is currently used for non-contact cooling water. However, it was discovered that this sample is actually a municipal water sample and should be dismissed. The actual production well was sampled a month later and the data is presented in this report (Appendix C). According to the ODNR well log, the depth of the production well is 120 feet. William Mullins, Jr., stated that the well produces about 300 gallons of water per minute for 8 hours a day.

Sample GW-8 was collected from the dry well that receives the non-contact cooling water from the TCE tanks. At the time of sampling, there was a stable water level in the well approximately one to two feet bgs. This well has a depth of 8-10 feet.

Significant sample results are located in Table 1 below. Significant levels of TCE and PCE were detected in GW-6, GW-7 and GW-8. The highest concentration of PCE, 156 ppb, was detected in production well sample GW-7. Since this water enters a closed cooling system and is discharged to the dry wells, sample GW-8 also had a significant concentration of PCE at 77 ppb.

Another significant detection of PCE was found in GW-6 at 58 ppb. This was a down gradient Geoprobe grab sample located in the far southwest corner of the site.

The two up gradient ground water samples, GW-1 and GW-2, also had detections of PCE and TCE. PCE was detected in GW-1 at 5.3 ppb and 4.2 ppb in GW-2. TCE was detected in both samples but below 1 ppb. Although not considered significant under the HRS rule, sample GW-3 also contained low

levels of TCE and PCE. PCE and TCE were not detected in sample GW-5.

Table 1: Significant Ground Water Sample Results

Tricholorethene (TCE)

Location	Result
GW-6	11.0 ug/L
GW-7	6.18 ug/L
GW-8	2.2 ug/L

Tetracholoroethene (PCE)

Location	Result
GW-6	58 ug/L
GW-7	156 ug/L
GW-8	77 ug/L

4.0 MIGRATION PATHWAYS

4.1 Soil Exposure Pathway

The Mullins Rubber site is located in a light industrial and residential area of Riverside. The site is mostly covered by buildings and asphalt parking areas, with some grassy areas. Three sides of the site are surrounded by a maintained fence. The front of the site is secured by a chain gate. The site is accessible by persons on foot.

There are currently about 39 employees on site. There are no resident individuals, which are defined by HRS rule as a person who lives or attends school or day care on and within 200 feet of an area of contamination. The nearby population within one mile is 5,711. Census information can be found in Table 2.

4.2 Ground Water Pathway

The ground water pathway is the main pathway of concern. The site is located approximately 1,350 feet from the Dayton Mad River Well Field wellhead protection area and 1,600 feet from the Dayton Miami Well Field wellhead protection area. The closest production well is approximately 2,650 feet from MRP in the Dayton Mad River Well Field.

Figure 6 shows the regional ground water flow of the Mad River Buried Valley Aquifer. The contours indicate the flow of ground water generally to the south or

southwest relative to MRP.

Some of the Mad River Well Field early warning monitoring wells shown on Figure 6 have detections of TCE and are located in an area generally down gradient of the facility.

Early warning monitoring wells 104s, 105s, 105d, 106s and 106d are located closest to the site. In 1994, TCE was detected in MW-104s and MW-105s at 2.3 ppb and 3.2 ppb, respectively. Low levels of PCE ranging from 0.2 ppb to 1.0 ppb were also detected in these two wells. MW-106s has a history of low-level TCE and PCE detections dating back to 1987. The most recent detection was in 2006 when TCE was detected at 0.5 ppb and PCE at 1.2 ppb. The well logs can be found in Appendix E and monitoring well sampling results can be found in Appendix F.

The city of Dayton obtains its drinking water solely from ground water sources. There are four community drinking water systems within the four-mile radius target distance limit (TDL). The Mad River and Dayton Miami Well Fields are located 1.2 miles southeast and 1.2 to 1.6 miles northwest of the site, respectively, and collectively serve approximately 420,000 people. The Huber Heights plant #1 community system is located 1.2 miles to the northwest and serves 29,250 people. The Huber Heights plant #3 community system is located 3.3 miles to the north and serves 400 people. There is one non-community system, Greene County – Fairborn, located 3.7 miles southeast of the site which serves 130 people (Appendix G).

4.3 Surface Water Pathway

Runoff from the MRP site flows into a storm water sewer system and discharges into the Mad River. The Mad River flows into the Great Miami River approximately 3 miles downstream. The 15-mile TDL ends in the Great Miami River near the city of West Carrollton.

There is one state endangered species and one state threatened species within the TDL. The state endangered Plains Clubtail Dragonfly (Gomphus Externus) is located in the Mad River approximately 2.17 miles downstream of the site. The state threatened Yellow-Crowed Night Heron (Nyctanassa Violacea) is located approximately 4.7 miles downstream from the site (Appendix G).

Both the Mad River and Great Miami River have fishable fish populations. There are no surface water intakes for drinking water within the TDL.

4.4 Air Pathway

The MRP site is an active manufacturing facility. Most of the land is covered with buildings or asphalt parking areas. There are some grassy areas that are maintained. The possibility of contaminants migrating as gas or particulates is

low.

The estimated population according to the 2000 census is as follows:

Table 2: Census Data

Radius	Population
0 - 1/4	423
1/4 - ½	1,297
½ - 1	3,991
1-2	15,323
2-3	37,833
3-4	51,544
Total	110,411

5.0 SUMMARY

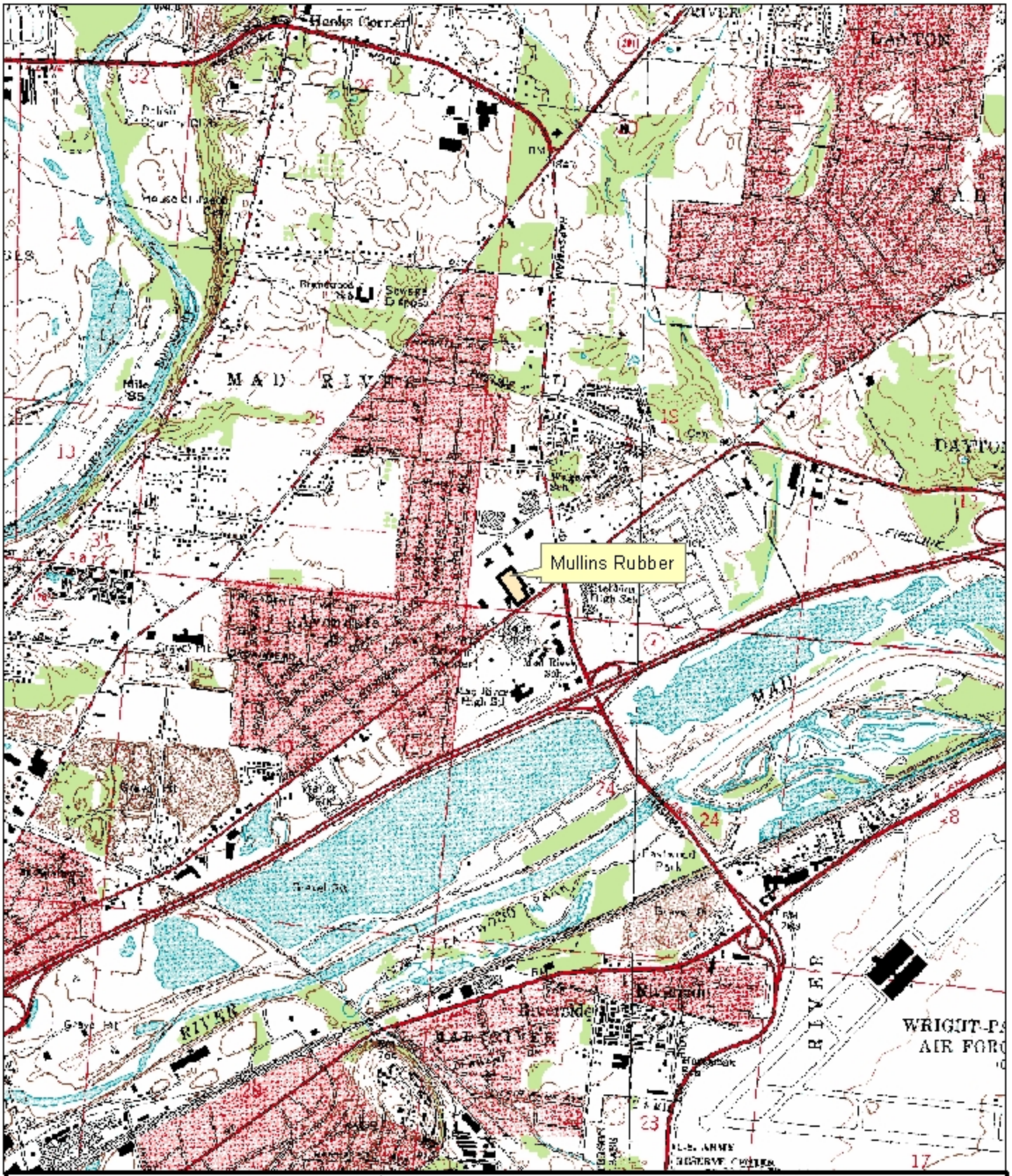
MRP is a rubber products manufacturing facility that has been active on this site since 1942. The company uses TCE in its manufacturing processes and in 2004, William R. Mullins, the company president, pled guilty to four counts of making false statements when reporting airborne discharges of TCE. Mr. Mullins also pled guilty to one count of failing to submit a Title V air permit by the October 1996 deadline.

The site is located within 1,350 feet of two major well head protection areas for the city of Dayton, and approximately 2,650 feet from the nearest production well. Collectively, these two well fields serve over a half million people.

Sampling results show significant detections of TCE and PCE in sampling locations GW-6, GW-7 and GW-8. The MRP has used TCE in their operations for many years; however there is no documentation that the company has historically used PCE. The 156 ug/L of PCE in the deep, high yielding production well (GW-7) indicates a possible off site source of PCE.

Appendix A

Figures



MULLINS RUBBER PRODUCTS
RIVERSIDE, MONTGOMERY COUNTY, OHIO
USGS QUADRANGLE

FIGURE 1: SITE LOCATION MAP

Ohio Environmental Protection Agency

0 500 1,000 2,000 3,000 4,000 Feet

N
W E
S

MULLINS RUBBER PRODUCTS
RIVERSIDE, MONTGOMERY COUNTY, OHIO
AERIAL PHOTOGRAPH

FIGURE 2: 2005 AERIAL PHOTOGRAPH

Ohio Environmental Protection Agency

0 335 670 1,340 2,010 2,680
Feet

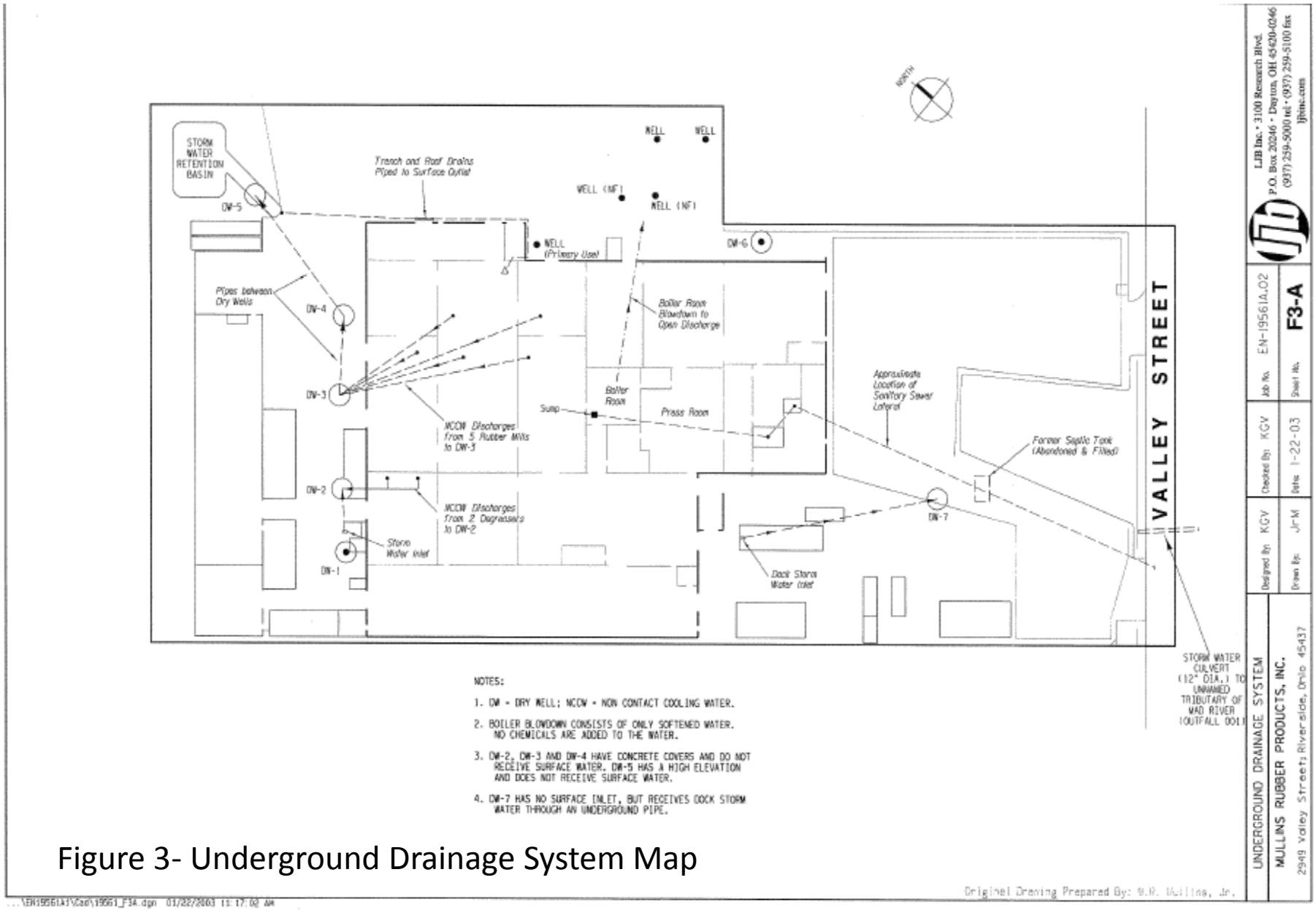
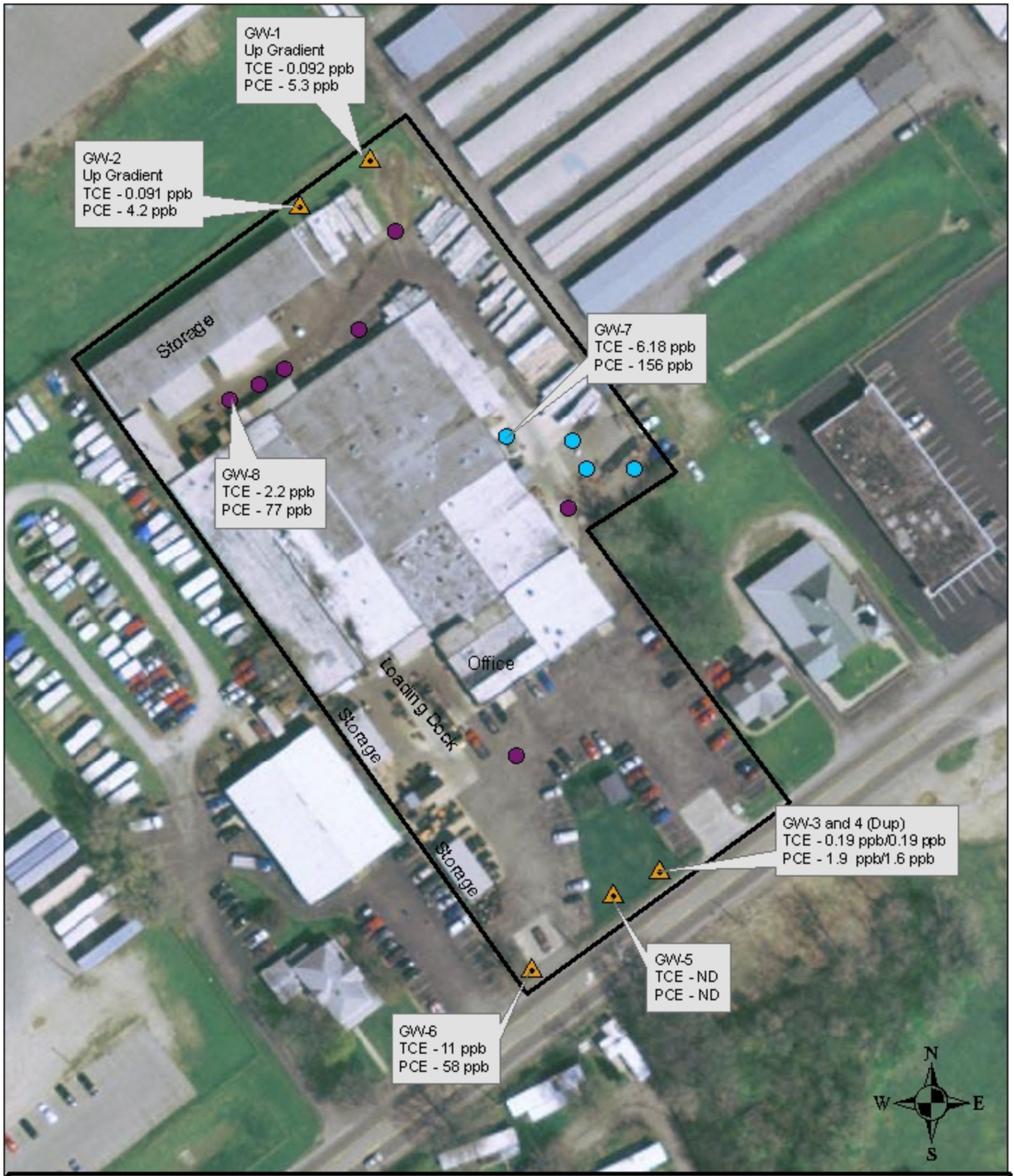


Figure 3- Underground Drainage System Map



Legend

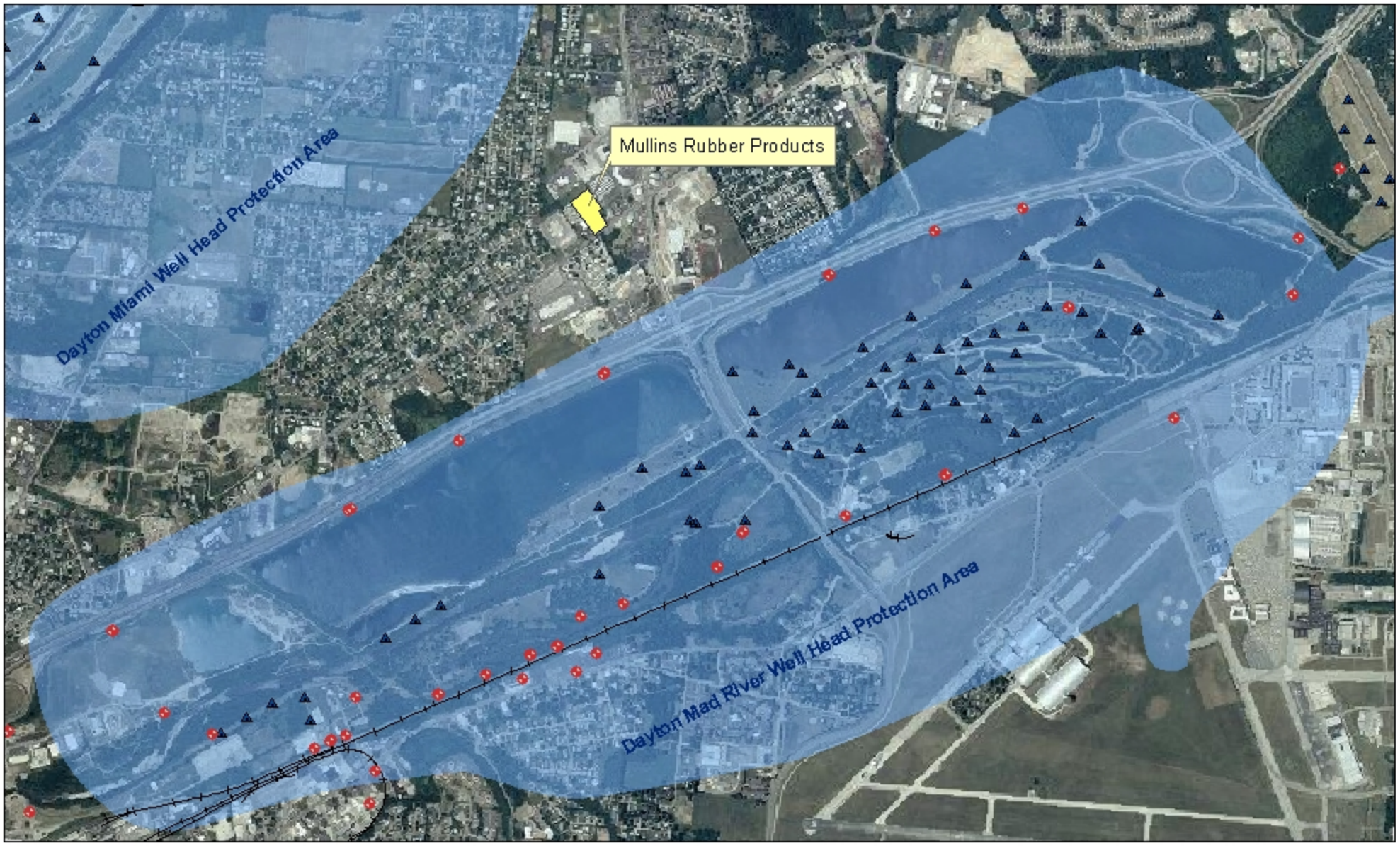
- Production Wells
- Dry Wells
- Ground Water Grab Sample Location

MULLINS RUBBER PRODUCTS
RIVERSIDE, MONTGOMERY COUNTY, OHIO
AERIAL PHOTOGRAPH

FIGURE 4: SAMPLE LOCATION MAP

Ohio Environmental Protection Agency

0 20 40 80 120 160 Feet



Legend

- Early Warning Monitoring Wells
- Production Wells

MULLINS RUBBER PRODUCTS
RIVERSIDE, MONTGOMERY COUNTY, OHIO
AERIAL PHOTOGRAPH

N
W E
S

FIGURE 5: MAD RIVER WELL FIELD EARLY WARNING MONITORING WELL LOCATIONS

Ohio Environmental Protection Agency

0 500 1,000 2,000 3,000 4,000
Feet

Shallow Hydraulic Potential Flow Map, Mad River Buried Valley Aquifer
December 13, 1986

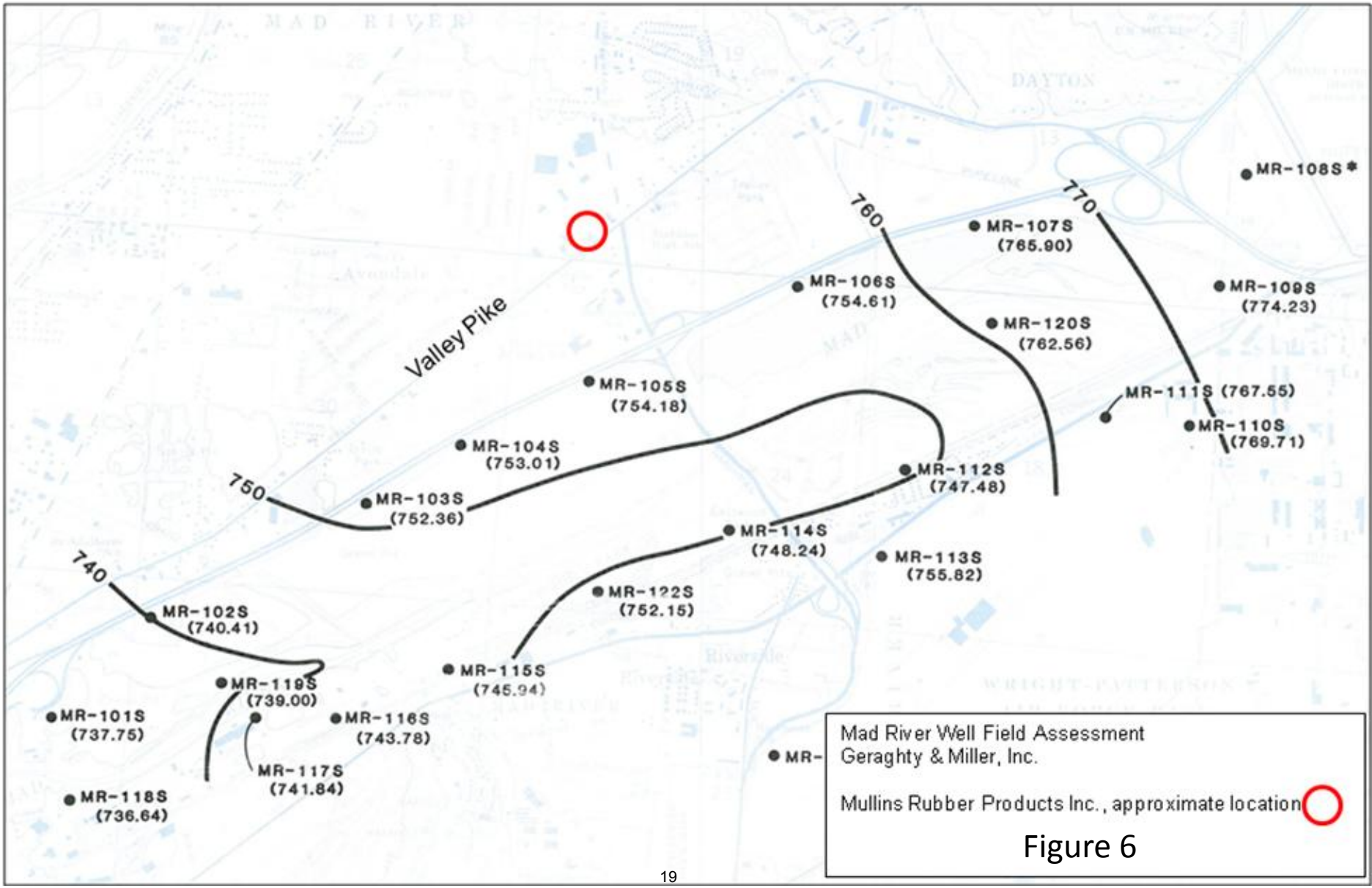


Figure 6

Appendix B

Analytical Results – Contract Laboratory Program

Controlled Document

ESAT5.216.00172
ACH
12-10-10

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V
SUPERFUND DIVISION

DATE:

SUBJECT: Review of Data
Received for Review on: November 18, 2010

FROM: Timothy Prendiville, Supervisor (SR-6J)
Superfund Contract Management Section

TO: Data User: OEPA
Level 3 Data Validation

We have reviewed the data for the following case:

Site Name: Mullins Rubber Products, Inc. (OH)

Case Number: 40752 SDG Number: E2692

Number and Type of Samples: 9 Waters (Trace Volatiles)

Sample Numbers: E2692 – E2700

Laboratory: ALS Laboratory Group Hrs for Review:_____

Following are our findings:

CC: Howard Pham
Region 5 TPO
Mail Code: SA-5J

Case Number: 40752
Site Name: Mullins Rubber Products, Inc. (OH)

SDG Number: E2692
Laboratory: ALS Laboratory Group

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Nine (9) preserved water samples; E2692 through E2700, were shipped to ALS Laboratory Group located in Salt Lake City, UT. All samples were collected on 11-01-2010 and 11-02-2010, and received on 11-04-2010 intact and properly cooled.

All samples were analyzed for only the trace volatile list of compounds according to CLP SOW SOM01.2 (6/2007) and reviewed according to the NFG for SOM01.2 and the SOP for ESAT 5/TechLaw Validation of Contract Laboratory Program Organic Data (Version 2.4).

Sample E2698 was designated by the samplers to be used for laboratory QC, i.e. MS / MSD analyses.

Sample E2700 was identified as a trip blank.

No samples were identified as field blanks or field duplicates.

Reviewed by: Allison Harvey / TechLaw-ESAT
Date: December 7, 2010

Case Number: 40752
Site Name: Mullins Rubber Products, Inc. (OH)

SDG Number: E2692
Laboratory: ALS Laboratory Group

1. HOLDING TIME

No problems were found.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

No problems were found.

3. CALIBRATION

No problems were found.

4. BLANKS

The following trace volatile samples have analyte concentrations reported below the CRQL. The associated method blank concentration is less than the concentration criteria. Detected compounds are qualified "U". Non-detected compounds are not qualified. Reported sample concentrations have been elevated to the CRQL.

E2694
1,2,4-Trichlorobenzene

The following trace volatile samples have analyte concentrations reported below the CRQL. The associated storage blank concentration is less than the concentration criteria. Detected compounds are qualified "U". Non-detected compounds are not qualified. Reported sample concentrations have been elevated to the CRQL.

E2696
Tetrachloroethene

The following trace volatile samples have common contaminant analyte concentrations reported less than 2x the CRQL. The associated storage blank has common contaminant analyte concentration less than 2x the concentration criteria. Detected compounds are qualified "U". Non-detected compounds are not qualified. Reported sample concentrations have been elevated to 2x the CRQL.

E2700
Methylene chloride

The following trace volatile samples have common contaminant analyte concentrations reported less than 2x the CRQL. The associated trip blank has common contaminant analyte concentration less than 2x the concentration criteria. Detected compounds are qualified "U". Non-detected compounds are not qualified. Reported sample concentrations have been elevated to 2x the CRQL.

Reviewed by: Allison Harvey / TechLaw-ESAT
Date: December 7, 2010

E2694, E2695, E2697, E2698, E2698MS, E2698MSD, E2699
Acetone

The following trace volatile samples have analyte concentrations reported less than the CRQL. The associated trip blank concentration is less than the concentration criteria. Detected compounds are qualified "U". Non-detected compounds are not qualified. Reported sample concentrations have been elevated to the CRQL.

E2698, E2698MS, E2698MSD
Chloromethane

E2692, E2694, E2695, E2696, E2697, E2698MSD
Carbon disulfide

E2692, E2693, E2694, E2695, E2696, E2697
Benzene

E2692, E2693, E2694, E2695, E2696, E2697, E2697DL
Toluene

E2692, E2693, E2694, E2695, E2696, E2697, E2699, E2699DL
M,p-Xylene

5. DEUTERATED MONITORING COMPOUND AND SURROGATE RECOVERY

The following trace volatile samples have one or more DMC/SMC recovery values less than the primary lower limit but greater than or equal to the expanded lower limit of the criteria window. Detected compounds are qualified "J". Non-detected compounds are qualified "UJ".

E2698, E2698MS
Vinyl chloride

E2698MSD
1,1-Dichloroethene, trans-1,2-Dichloroethene, cis-1,2-Dichloroethene

The following trace volatile samples have DMC/SMC recoveries below the expanded lower limit of the criteria window. Detected compounds are qualified "J". Non-detected compounds are qualified "R".

E2698MSD
Vinyl chloride

6A. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample E2698 was designated by the samplers to be used for laboratory QC, i.e. MS / MSD analyses.

The following trace volatile matrix spike/matrix spike duplicate samples have percent recoveries greater than or equal to the expanded lower acceptance limit but less than the primary lower acceptance limit. The compound was not detected in the unspiked sample, E2698. The non-detected compound in the unspiked sample, E2698, is qualified "UJ".

E2698MSD
1,1-Dichloroethene

The relative percent difference (RPD) between the following trace volatile matrix spike and matrix spike duplicate recoveries is outside criteria. The compound was not detected in the unspiked sample, E2698. The non-detected compound in the unspiked sample, E2698, is qualified "UJ".

E2698MS, E2698MSD
1,1-Dichloroethene

6B. LABORATORY CONTROL SAMPLE

No problems were found.

7. FIELD BLANK AND FIELD DUPLICATE

Sample E2700 was identified as a trip blank. Results are summarized in the following table:

Trace Volatile Compounds	E2700
	µg/L
Chloromethane	0.086
Acetone	56.000
Carbon disulfide	0.097
2-Butanone	2.700
Benzene	0.094
Toluene	0.190
M,p-Xylene	0.086
1,4-Dichlorobenzene	0.380

Results are not qualified based upon the results of the field duplicates.

Reviewed by: Allison Harvey / TechLaw-ESAT
Date: December 7, 2010

8. INTERNAL STANDARDS

No problems were found.

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all trace volatile compounds were properly identified.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

The following trace volatile samples have analyte concentrations below the quantitation limit (CRQL). Detected compounds are qualified "J".

E2692
Cyclohexane, Trichloroethene, Methylcyclohexane, Ethylbenzene, o-Xylene

E2693, E2695
Cyclohexane, Trichloroethene, Ethylbenzene, o-Xylene

E2694
Trichloroethene, Ethylbenzene, o-Xylene

E2696, E2697
Cyclohexane, Methylcyclohexane, Ethylbenzene, o-Xylene

E2698
Cis-1,2-Dichloroethene, Trichloroethene

E2698MS
Bromomethane, cis-1,2-Dichloroethene

E2698MSD
cis-1,2-Dichloroethene

E2699
Ethylbenzene, o-Xylene

E2699DL
Trichloroethene

E2700
Chloromethane, Carbon disulfide, 2-Butanone, Benzene, Toluene, m,p-Xylene, 1,4-Dichlorobenzene

VBLKT1
1,2,4-Trichlorobenzene, 1,2,3-Trichlorobenzene

VHBLKT1
Methylene chloride, Bromdichloromethane, Tetrachloroethene, Dibromochloromethane

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.

12. ADDITIONAL INFORMATION

The following trace volatile samples have compound concentrations which exceed the instruments calibration range. The detected results are qualified "J". The results from the diluted analyses should be considered the final concentrations for the affected compounds.

E2697, E2699
Tetrachloroethene

Reviewed by: Allison Harvey / TechLaw-ESAT
Date: December 7, 2010

Case Number: 40752
Site Name: Mullins Rubber Products, Inc. (OH)

SDG Number: E2692
Laboratory: ALS Laboratory Group

CADRE Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
NJ	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
R	The data are unusable. (The compound may or may not be present.)

Reviewed by: Allison Harvey / TechLaw-ESAT
Date: December 7, 2010

Case #: 40752 SDG : E2692
Site : MULLINS RUBBER PRODUCTS, INC Number of Soil Samples : 0
Lab. : DATAC Number of Water Samples : 9
Reviewer : Number of Sediment Samples : 0
Date :

Sample Number :	E2692		E2693		E2694		E2695		E2696	
Sampling Location :	GW-1		GW-2		GW-3		GW-4		GW-5	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	11/2/2010		11/2/2010		11/2/2010		11/2/2010		11/2/2010	
Time Sampled :										
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	6.0		6.0		1.0		6.0		6.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Trace Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Chloromethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Vinyl chloride	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Bromomethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Chloroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Trichlorofluoromethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1-Dichloroethene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Acetone	5.0	U	5.0	U	10.0	U	10.0	U	5.0	U
Carbon disulfide	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Methyl acetate	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Methylene chloride	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
trans-1,2-Dichloroethene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Methyl tert-butyl ether	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1-Dichloroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
cis-1,2-Dichloroethene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Bromochloromethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Chloroform	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1,1-Trichloroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Cyclohexane	0.43	J	0.47	J	0.63		0.48	J	0.27	J
Carbon tetrachloride	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Benzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2-Dichloroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Trichloroethene	0.092	J	0.091	J	0.19	J	0.19	J	0.50	U
Methylcyclohexane	0.47	J	0.51		0.74		0.51		0.28	J
1,2-Dichloropropane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Bromodichloromethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
cis-1,3-Dichloropropene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
4-Methyl-2-Pentanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Toluene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,3-Dichloropropene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1,2-Trichloroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U

Case #: 40752 SDG : E2692
Site : MULLINS RUBBER PRODUCTS, INC
Lab. : DATAC
Reviewer :
Date :

Sample Number :	E2692		E2693		E2694		E2695		E2696	
Sampling Location :	GW-1		GW-2		GW-3		GW-4		GW-5	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	11/2/2010		11/2/2010		11/2/2010		11/2/2010		11/2/2010	
Time Sampled :										
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	6.0		6.0		1.0		6.0		6.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Trace Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Tetrachloroethene	5.3		4.2		1.9		1.6		0.50	U
2-Hexanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Dibromochloromethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2-Dibromoethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Chlorobenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Ethylbenzene	0.20	J	0.21	J	0.27	J	0.21	J	0.15	J
o-Xylene	0.13	J	0.14	J	0.16	J	0.13	J	0.098	J
m,p-Xylene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Styrene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Bromoform	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Isopropylbenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1,2,2-Tetrachloroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,3-Dichlorobenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,4-Dichlorobenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2-Dichlorobenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2-Dibromo-3-chloropropane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2,4-Trichlorobenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2,3-Trichlorobenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U

Analytical Results (Qualified Data)

Case #: 40752 SDG : E2692
Site : MULLINS RUBBER PRODUCTS, INC
Lab. : DATAC
Reviewer :
Date :

Sample Number :	E2697		E2697DL		E2698		E2698MS		E2698MSD	
Sampling Location :	GW-6		GW-6		GW-7		GW-7		GW-7	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	11/2/2010				11/2/2010					
Time Sampled :										
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	6.0		6.0		1.0		1.0		1.0	
Dilution Factor :	1.0		5.0		1.0		1.0		1.0	
Trace Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
Chloromethane	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
Vinyl chloride	0.50	U	2.5	U	0.50	UJ	0.50	UJ	0.50	R
Bromomethane	0.50	U	2.5	U	0.50	U	0.056	J	0.50	U
Chloroethane	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
Trichlorofluoromethane	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
1,1-Dichloroethene	0.50	U	2.5	U	0.50	UJ	5.1		2.7	J
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
Acetone	10.0	U	25	U	10.0	U	10.0	U	10.0	U
Carbon disulfide	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
Methyl acetate	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
Methylene chloride	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
trans-1,2-Dichloroethene	0.50	U	2.5	U	0.50	U	0.50	U	0.50	UJ
Methyl tert-butyl ether	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
1,1-Dichloroethane	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
cis-1,2-Dichloroethene	0.50	U	2.5	U	0.14	J	0.16	J	0.16	J
2-Butanone	5.0	U	25	U	5.0	U	5.0	U	5.0	U
Bromochloromethane	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
Chloroform	0.50	U	2.5	U	3.7		3.8		4.1	
1,1,1-Trichloroethane	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
Cyclohexane	0.14	J	2.5	U	0.50	U	0.50	U	0.50	U
Carbon tetrachloride	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
Benzene	0.50	U	2.5	U	0.50	U	4.9		5.2	
1,2-Dichloroethane	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
Trichloroethene	11		11		0.084	J	4.9		5.1	
Methylcyclohexane	0.18	J	2.5	U	0.50	U	0.50	U	0.50	U
1,2-Dichloropropane	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
Bromodichloromethane	0.50	U	2.5	U	5.4		5.6		6.0	
cis-1,3-Dichloropropene	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
4-Methyl-2-Pentanone	5.0	U	25	U	5.0	U	5.0	U	5.0	U
Toluene	0.50	U	2.5	U	0.50	U	4.2		4.0	
trans-1,3-Dichloropropene	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
1,1,2-Trichloroethane	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U

Case #: 40752 SDG : E2692
Site : MULLINS RUBBER PRODUCTS, INC
Lab. : DATAC
Reviewer :
Date :

Sample Number :	E2697		E2697DL		E2698		E2698MS		E2698MSD	
Sampling Location :	GW-6		GW-6		GW-7		GW-7		GW-7	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	11/2/2010				11/2/2010					
Time Sampled :										
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	6.0		6.0		1.0		1.0		1.0	
Dilution Factor :	1.0		5.0		1.0		1.0		1.0	
Trace Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Tetrachloroethene	58	J	58		0.50	U	0.50	U	0.50	U
2-Hexanone	5.0	U	25	U	5.0	U	5.0	U	5.0	U
Dibromochloromethane	0.50	U	2.5	U	5.2		5.7		6.3	
1,2-Dibromoethane	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
Chlorobenzene	0.50	U	2.5	U	0.50	U	4.5		4.9	
Ethylbenzene	0.096	J	2.5	U	0.50	U	0.50	U	0.50	U
o-Xylene	0.069	J	2.5	U	0.50	U	0.50	U	0.50	U
m,p-Xylene	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
Styrene	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
Bromoform	0.50	U	2.5	U	1.8		2.3		2.3	
Isopropylbenzene	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
1,1,2,2-Tetrachloroethane	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
1,3-Dichlorobenzene	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
1,4-Dichlorobenzene	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
1,2-Dichlorobenzene	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
1,2-Dibromo-3-chloropropane	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
1,2,4-Trichlorobenzene	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U
1,2,3-Trichlorobenzene	0.50	U	2.5	U	0.50	U	0.50	U	0.50	U

Case #: 40752 SDG : E2692
Site : MULLINS RUBBER PRODUCTS, INC
Lab. : DATAC
Reviewer :
Date :

Sample Number :	E2699		E2699DL		E2700		VBLKT1		VHBLKT1	
Sampling Location :	GW-8		GW-8		Trip Blank					
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	11/2/2010				11/1/2010					
Time Sampled :										
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	1.0		1.0		1.0					
Dilution Factor :	1.0		10.0		1.0		1.0		1.0	
Trace Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Chloromethane	0.50	U	5.0	U	0.086	J	0.50	U	0.50	U
Vinyl chloride	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Bromomethane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Chloroethane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Trichlorofluoromethane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
1,1-Dichloroethene	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Acetone	10.0	U	50	U	56		5.0	U	5.0	U
Carbon disulfide	0.50	U	5.0	U	0.097	J	0.50	U	0.50	U
Methyl acetate	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Methylene chloride	0.50	U	5.0	U	1.0	U	0.50	U	0.15	J
trans-1,2-Dichloroethene	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Methyl tert-butyl ether	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
1,1-Dichloroethane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
cis-1,2-Dichloroethene	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
2-Butanone	5.0	U	50	U	2.7	J	5.0	U	5.0	U
Bromochloromethane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Chloroform	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
1,1,1-Trichloroethane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Cyclohexane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Carbon tetrachloride	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Benzene	0.50	U	5.0	U	0.094	J	0.50	U	0.50	U
1,2-Dichloroethane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Trichloroethene	2.2		2.4	J	0.50	U	0.50	U	0.50	U
Methylcyclohexane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
1,2-Dichloropropane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Bromodichloromethane	0.50	U	5.0	U	0.50	U	0.50	U	0.064	J
cis-1,3-Dichloropropene	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
4-Methyl-2-Pentanone	5.0	U	50	U	5.0	U	5.0	U	5.0	U
Toluene	0.50	U	5.0	U	0.19	J	0.50	U	0.50	U
trans-1,3-Dichloropropene	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
1,1,2-Trichloroethane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U

Case #: 40752 SDG : E2692
Site : MULLINS RUBBER PRODUCTS, INC
Lab. : DATAC
Reviewer :
Date :

Sample Number :	E2699		E2699DL		E2700		VBLKT1		VHBLKT1	
Sampling Location :	GW-8		GW-8		Trip Blank					
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	11/2/2010				11/1/2010					
Time Sampled :										
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	1.0		1.0		1.0					
Dilution Factor :	1.0		10.0		1.0		1.0		1.0	
Trace Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Tetrachloroethene	77	J	82		0.50	U	0.50	U	0.083	J
2-Hexanone	5.0	U	50	U	5.0	U	5.0	U	5.0	U
Dibromochloromethane	0.50	U	5.0	U	0.50	U	0.50	U	0.060	J
1,2-Dibromoethane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Chlorobenzene	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Ethylbenzene	0.12	J	5.0	U	0.50	U	0.50	U	0.50	U
o-Xylene	0.13	J	5.0	U	0.50	U	0.50	U	0.50	U
m,p-Xylene	0.50	U	5.0	U	0.086	J	0.50	U	0.50	U
Styrene	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Bromoform	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
Isopropylbenzene	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
1,1,2,2-Tetrachloroethane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
1,3-Dichlorobenzene	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
1,4-Dichlorobenzene	0.50	U	5.0	U	0.38	J	0.50	U	0.50	U
1,2-Dichlorobenzene	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
1,2-Dibromo-3-chloropropane	0.50	U	5.0	U	0.50	U	0.50	U	0.50	U
1,2,4-Trichlorobenzene	0.50	U	5.0	U	0.50	U	0.061	J	0.50	U
1,2,3-Trichlorobenzene	0.50	U	5.0	U	0.50	U	0.098	J	0.50	U

National Functional Guidelines Report # 9

Lab DATAC (ALS Laboratory Group) **SDG** E2692 **Case** 40752 **Contract** EPW05026 **Region** 5 **DDTID** 106405 **SOW** SOM01.2

Tentatively identified Compounds

VOA_Trace Sample=E2692 Location=GW-1 Matrix=Water Level=Trace

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
E966796	Total Alkanes	.	2.5703	ug/L	J

National Functional Guidelines Report # 9

Lab DATAC (ALS Laboratory Group) **SDG** E2692 **Case** 40752 **Contract** EPW05026 **Region** 5 **DDTID** 106405 **SOW** SOM01.2

Tentatively identified Compounds

VOA_Trace Sample=E2693 Location=GW-2 Matrix=Water Level=Trace

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
E966796	Total Alkanes	.	2.8884	ug/L	J

National Functional Guidelines Report # 9

Lab DATAC (ALS Laboratory Group) **SDG** E2692 **Case** 40752 **Contract** EPW05026 **Region** 5 **DDTID** 106405 **SOW** SOM01.2

Tentatively identified Compounds

VOA_Trace Sample=E2694 Location=GW-3 Matrix=Water Level=Trace

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
E966796	Total Alkanes	.	3.824	ug/L	J

National Functional Guidelines Report # 9

Lab DATAC (ALS Laboratory Group) **SDG** E2692 **Case** 40752 **Contract** EPW05026 **Region** 5 **DDTID** 106405 **SOW** SOM01.2

Tentatively identified Compounds

VOA_Trace Sample=E2695 Location=GW-4 Matrix=Water Level=Trace

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
E966796	Total Alkanes	.	2.9714	ug/L	J

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Data
Received for Review on 18 NOV 2010

FROM: Timothy Prendiville, Supervisor **(SR-6J)**
Superfund Contract Management Section

TO: Data User: QEPA

We have reviewed the data for the following case:

SITE NAME: Mullins Rubber Products, Inc. (OH)

CASE NUMBER: 40752 SDG NUMBER: E2692

Number and Type of Samples: 9 Water samples

Sample Numbers: E2692 - E2700

Laboratory: ALS Laboratory Group Hrs for Review:

Following are our findings:

CC: Howard Pham
Region 5 TPO
Mail Code: **SRT-5J**

Sample Delivery Group (SDG)
Cover Sheet

SDG Number: E2692

☐ARO ☐PEST ☐BNA ☐BNASIM ☒VT ☐VOASIM ☐VLM

Laboratory Name: ALS Laboratory Group (SLC) Laboratory Code: DATAC

Contract No.: EPW05026 Case No.: 40752

Analysis Price: N/A SDG Turnaround: 14

Modified Analysis Requested: NO

Modification Reference No.: N/A

EPA Sample Numbers in SDG (Listed in Numerical Order)

1) E2692	7) E2698	13)	19)
2) E2693	8) E2699	14)	20)
3) E2694	9) E2700	15)	21)
4) E2695	10)	16)	22)
5) E2696	11)	17)	23)
6) E2697	12)	18)	24)

E2692	E2700
First Sample in SDG	Last Sample in SDG
11/04/10	11/04/10
First Sample Receipt Date	Last Sample Receipt Date

Note: *There are a maximum of 20 field samples (excluding PE samples) in an SDG. Attach the TR/COC records to this form in alphanumeric order (the order listed above on this form).*

Signature: Date: 11/10/2010

1030829

ontract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 40752
DAS No:
SDG No: E2692 **L**

Date Shipped:	11/3/2010
Carrier Name:	FedEx
Airbill:	866389086699
Shipped to:	ALS Laboratory Group 960 West LeVoy Drive Salt Lake City UT 84123 (801) 266-7700

Chain of Custody Record

Relinquished By	(Date / Time)	Received By	(Date / Time)
1		Merrell Stewart	11/4/10 954
2			
3			
4			

Sampler Signature:

For Lab Use Only

Lab Contract No: EPW5026
Unit Price: n/a
Transfer To: AK 11/4/10
Lab Contract No:
Unit Price:

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
E2692	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-001151 (HCL), 5C-1152 (HCL), 5C-1153 (HCL) (3)	GW-1	S: 11/2/2010	10:50		
E2693	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1154 (HCL), 5C-1155 (HCL), 5C-1156 (HCL) (3)	GW-2	S: 11/2/2010	12:00		
E2694	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1187 (HCL), 5C-1188 (HCL), 5C-1189 (HCL) (3)	GW-3	S: 11/2/2010	14:56		
E2695	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1166 (HCL), 5C-1167 (HCL), 5C-1168 (HCL) (3)	GW-4	S: 11/2/2010	15:00		
E2696	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1169 (Ice Only), 5C-1170 (Ice Only), 5C-1171 (Ice Only) (3)	GW-5	S: 11/2/2010	15:53		
E2697	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1172 (HCL), 5C-1173 (HCL), 5C-1174 (HCL) (3)	GW-6	S: 11/2/2010	16:41		
E2698	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1190 (HCL), 5C-1191 (HCL), 5C-1192 (HCL), 5C-1193 (HCL), 5C-1194 (HCL), 5C-1195 (HCL), 5C-1196 (HCL), 5C-1197 (HCL), 5C-1198 (HCL) (9)	GW-7	S: 11/2/2010	14:26		
E2699	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1178 (HCL), 5C-1179 (HCL), 5C-1180 (HCL) (3)	GW-8	S: 11/2/2010	14:46		
E2700	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1199 (HCL), 5C-1200 (HCL), 5C-1201 (HCL) (3)	Trip Blank	S: 11/1/2010	12:00		

AK 11/4/10

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt:	Chain of Custody Seal Number:
	E2698		5	

Analysis Key: **Concentration:** L = Low, M = Low/Medium, H = High **Type/Designate:** Composite = C, Grab = G

Custody Seal Intact? Y Shipment Iced? Y

CLP TVOA = CLP TCL Trace Volatiles

TR Number: 5-131260284-110310-0001

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 40752
DAS No:
SDG No: L

Date Shipped:	11/3/2010
Carrier Name:	FedEx
Airbill:	866389086699
Shipped to:	ALS Laboratory Group 960 West LeVoy Drive Salt Lake City UT 84123 (801) 266-7700

Chain of Custody Record

Sampler Signature:

Relinquished By	(Date / Time)	Received By	(Date / Time)
1	11/10/10 900		
2			
3			
4			

For Lab Use Only

Lab Contract No:
Unit Price:
Transfer To:
Lab Contract No:
Unit Price:

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
E2692	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-001151 (HCL), 5C-1152 (HCL), 5C-1153 (HCL) (3)	GW-1	S: 11/2/2010	10:50		
E2693	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1154 (HCL), 5C-1155 (HCL), 5C-1156 (HCL) (3)	GW-2	S: 11/2/2010	12:00		
E2694	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1187 (HCL), 5C-1188 (HCL), 5C-1189 (HCL) (3)	GW-3	S: 11/2/2010	14:56		
E2695	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1166 (HCL), 5C-1167 (HCL), 5C-1168 (HCL) (3)	GW-4	S: 11/2/2010	15:00		
E2696	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1169 (Ice Only), 5C-1170 (Ice Only), 5C-1171 (Ice Only) (3)	GW-5	S: 11/2/2010	15:53		
E2697	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1172 (HCL), 5C-1173 (HCL), 5C-1174 (HCL) (3)	GW-6	S: 11/2/2010	16:41		
E2698	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1190 (HCL), 5C-1191 (HCL), 5C-1192 (HCL), 5C-1193 (HCL), 5C-1194 (HCL), 5C-1195 (HCL), 5C-1196 (HCL), 5C-1197 (HCL), 5C-1198 (HCL) (9)	GW-7	S: 11/2/2010	14:26		
E2699	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1178 (HCL), 5C-1179 (HCL), 5C-1180 (HCL) (3)	GW-8	S: 11/2/2010	14:46		
E2700	Ground Water/ Wendy Vorwerk	L/G	CLP TVOA (21)	5C-1199 (HCL), 5C-1200 (HCL), 5C-1201 (HCL) (3)	Trip Blank	S: 11/1/2010	12:00		

Shipment for Case Complete?Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt:	Chain of Custody Seal Number:	
	E2698				
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? ___	Shipment Iced? ___

CLP TVOA = CLP TCL Trace Volatiles

TR Number: 5-131260284-110310-0001

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

LABORATORY COPY

42

SSS6

SDG Narrative
Trace Volatiles

Contract: EPW05026
Case: 40752
SDG: E2692
Laboratory Name: ALS Datachem Laboratories

Sample Number	DCL Sample ID	pH	Dilution
E2692	1030829001	6	
E2693	1030829002	6	
E2694	1030829003	1	
E2695	1030829004	6	
E2696	1030829005	6	
E2697	1030829006	6	
E2697DL	1030829006DL	6	1:5
E2698	1030829007	1	
E2698MS	1030829008	1	
E2698MSD	1030829009	1	
E2699	1030829010	1	
E2699DL	1030829010DL	1	1:10
E2700	1030829011	1	

General SDG Information: Samples were analyzed according to USEPA CLP Statement of Work SOM01.2. There were no deviations from the SOW except as listed below. Sample D66G0 was an ampule.

Instrumentation: Hewlett Packard 5972-P GC/MSD with electron impact ionization and quadrupole detector scanning at a mass range of 35 to 300 amu.
Column: J&W Scientific DB624 – 75 meters, 0.53 mm id., 3 µm film
Temperature Program: 45°C (3.5 min) 10°C/min ramp to 220°C
Purge & Trap Device: Tekmar Dynamic Headspace Concentrator ALS 2016/LSC 2000
Purge Flow: 35 mL/min Trap: Vocarb 3000 Trap Temp: 35°C
Carrier Gas: Helium Purge Gas: Helium

Sample Preparation: This method has no extraction procedure for the water matrix. Twenty-five milliliters of water sample was spiked with Internal Standard/DMC Solution and purged. The ampule was prepared as per instructions.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for a 50 ng purging of 4-Bromofluorobenzene as specified in the SOW. This tune check is valid for 12 hours.

Initial and Continuing Calibration Verification: The five point initial calibration curve, which is used for the quantitation of each target compound, met the specified criteria in the SOW. Due to an interfering ion from 1,2-Dichloropropane, a secondary ion of 55 was used for the quantitation of Methylcyclohexane for all calibrations, blanks, and samples. A continuing calibration standard (CCAL) was analyzed prior to sample analysis. A final calibration standard (FCAL) was analyzed after sample analysis. Manual edits were made in the calibration standards and in some samples for various mis-called peaks. Every manual integration is noted by an "m" footnote on the quantitation report, and an additional graphics page is included for each manual integration to show how the peak was integrated. Analytes that required manual integrations are listed.

Blank Analysis: Method blanks were prepared using 25 mL of spiked reagent water. The blanks were analyzed prior to sample analysis and were free of volatile organic contaminants within the specifications of the SOW.

Sample Analysis: All deuterated monitoring compounds and internal standard area responses were within the required acceptance criteria. All samples were analyzed within ten days of verified sample receipt.

MS/MSD Analysis: Matrix spike (MS) and matrix spike duplicate (MSD) analyses for the water samples were performed using sample E2698. The matrix spike compounds are 1,1-Dichloroethene, Benzene, Trichloroethene, Toluene and Chlorobenzene; each is spiked in at a concentration of 5 µg/L. All percent recoveries and RPD's were within QC, except for 1,1-dichloroethene.

Miscellaneous Comments: As instructed in the SOW, alkanes are not reported separately on the Form 1J but rather are summarized as "total alkanes."

With regard to the naming of tentatively-identified compounds (TICs), spectral matches above 85 percent are reported as a specific isomer unless the analyst has a specific reason to assign a different name. The exact isomer configuration, as reported, may not be absolutely accurate. Reasons for assigning a TIC name other than the match with the highest fit value above 85% include: instances in which the analyst has previous experience with respect to a specific compound; when the first computer-generated match is a target compound and retention time information clearly indicates the TIC is in fact not the target compound; and when a specific compound name has already been assigned to a peak. Even though specific names will usually be given to TICs with spectral fits above 85%, it must be understood by the data user that TIC names are very tentative, and it cannot be assumed that the specific isomers reported are correct.

Sample Calculations:

Relative Response Factor: $RRF = \left[\frac{A_x}{A_{is}}\right]\left[\frac{C_{is}}{C_x}\right]$

Where A_x is the area of the characteristic ion for the compound to be measured, A_{is} is the area of the characteristic ion for the internal standard , C_{is} is the concentration of the internal standard, and C_x is the concentration of the compound to be measured.

Concentration in ug/L: $C = \left[\frac{(A_x)\,(I_s)\,(Df)}{(A_{is})\,(RRF)\,(V_o)}\right]$

Where I_s is the amount of internal standard spiked in ng (125 ng), Df is a dilution factor (1 if no dilutions are made), RRF is the mean relative response factor (assumed to be 1 for non target analytes) and V_o is the total volume purged in mL.

I certify that this Sample Data Package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the electronic data deliverable has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Thomas J. Masoian — November 16, 2010

Thomas J. Masoian
Chemist
Volatile Organic Analysis Section

Edwards, Meredith D.

From: Mroz, Ryan [rmroz@fedcsc.com]
Sent: Friday, November 05, 2010 12:19 PM
To: Meredith Edwards; Roxanne W. Olson
Cc: wendy.vorwerk@epa.state.oh.us; Carlene Thomas; Howard Pham; roberman.alida@epa.gov; Prendiville.Timothy@epamail.epa.gov; Warren Layne
Subject: Region 05 | Case 40752 | Lab DATAC | Issue Documentation | FINAL
Attachments: Organic Case 40752.pdf

Roxy,

Summary Start
-Discrepancies with tags, jars, and/or TR/COC-
Issue 1: The sample tag numbers do not match the TR/COC. Starting with sample E2693 and ending with E2700 2 zeros are missing after the 5C on the tag number.
Resolution 1: In accordance with previous direction from Region 5, the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the sample using the sample tag number attached to the sample container.

-Missing signatures on the TR/COC-
Issue 2: The sampler did not sign/relinquish the TR/COC.
Resolution 2: Per Region 5, the lab note the issue and proceed with the analysis. The sampler shall send the lab an amended signed TR/COC for inclusion in the records.
Summary End

Let me know if you have any additional questions.
Thanks,
Please note: To waive any defect(s) associated with this issue, please contact your PO.

Ryan Mroz
Environmental Coordinator - Regions 5 & 8
CSC

15000 Conference Center Drive Chantilly, VA 20151
Civil Division | phone: 703.818.4568 | fax: 703.818.4602 | rmroz@fedcsc.com | www.csc.com

-----Original Message-----
From: Layne.Warren@epamail.epa.gov [mailto:Layne.Warren@epamail.epa.gov]
Sent: Friday, November 05, 2010 1:40 PM
To: Mroz, Ryan
Cc: Roberman.Alida@epamail.epa.gov;
permitqualityreviews/permitqualityreviews/QP/USEPA/US@epamail.epa.gov
Subject: Re: Region 05 | Case 40752 | Lab DATAC | Issue Documentation

Hi, Myron. Please have the lab note the issue and proceed with the analysis. However please have the sampler sand an amended TR/COC with the signature to the lab (have them sign an exact duplicate of the form and send it to the lab for inclusion in the records. Thanks.
arren W. Layne, Ph.D.
Chemist, QAPP Reviewer, RSCC, & Nanotechnology Lead
USEPA Region 5, Superfund Division, ISTB, FSS
Mail Code: SR-5J, 77 W. Jackson Boulevard
Chicago, IL 60604-3590
Tel: 312-886-7336, FAX: 312-353-9281

From: Wendy Vorwerk [mailto:wendy.vorwerk@epa.state.oh.us]
Sent: Friday, November 05, 2010 1:41 PM
To: Mroz, Ryan
Subject: Re: Region 05 | Case 40752 | Lab DATAC | Issue Documentation

Issue 1: FORMs drops the 0's when the number starts with a 0.

Issue 2: I forgot to sign the COC - sorry. Proceed anyway.

Wendy Vorwerk
Ohio EPA
Division of Emergency and Response
(614)836-8759

From: Mroz, Ryan
Sent: Friday, November 05, 2010 12:56 PM
To: 'wendy.vorwerk@epa.state.oh.us'
Cc: 'Carlene Thomas'; 'Howard Pham'; 'roberman.alida@epa.gov'; 'Tim Prendiville (Prendiville.Timothy@epamail.epa.gov)'; 'Warren Layne'
Subject: Region 05 | Case 40752 | Lab DATAC | Issue Documentation

Wendy,

DATAC is reporting the following Issue with Case 40752. Please advise the laboratory how to proceed on Issue 2.

-Discrepancies with tags, jars, and/or TR/COC-
Issue 1: The sample tag numbers do not match the TR/COC. Starting with sample E2693 and ending with E2700 2 zeros are missing after the 5C on the tag number.
Resolution 1: In accordance with previous direction from Region 5, the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the sample using the sample tag number attached to the sample container.

-Missing signatures on the TR/COC-
Issue 2: The sampler did not sign/relinquish the TR/COC.

Let me know if you have any questions.
Thanks,

Ryan Mroz
Environmental Coordinator - Regions 5 & 8

CSC

15000 Conference Center Drive Chantilly, VA 20151
Civil Division | phone: 703.818.4568 | fax: 703.818.4602 | rmroz@fedcsc.com | www.csc.com

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From: Olson, Roxanne [mailto:Roxanne.Olson@ALSGlobal.com]
Sent: Thursday, November 04, 2010 5:16 PM
To: Mroz, Ryan
Subject: FW: Organic Case 40752

Ryan:

Please see Mere's comment below concerning the shipment from today.

Roxy
From: Edwards, Meredith D.
Sent: Thursday, November 04, 2010 3:10 PM
To: ALS SLC EPA
Subject: Organic Case 40752

Just a small issue, starting with sample E2693 and ending with E2700 all the tags listed on the TR are missing 2 zeros after the 5C on the tag number. Also the TR has not been relinquished by the sampler. I have attached the TR.

Thanks
Mere

2A - FORM II VOA-1

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Level: (TRACE or LOW) TRACE

	EPA SAMPLE NO.	VDMC1 (VCL) #	VDMC2 (CLA) #	VDMC3 (DCE) #	VDMC4 (BUT) #	VDMC5 (CLF) #	VDMC6 (DCA) #	VDMC7 (BEN) #
01	E2692	79	106	83	84	98	90	113
02	E2693	80	91	72	81	99	91	114
03	E2694	78	92	88	85	98	90	113
04	E2695	81	112	89	89	99	95	111
05	E2696	78	94	74	97	100	95	109
06	E2697	80	113	91	93	100	95	110
07	E2697DL	77	110	87	96	100	98	107
08	E2698	33 *	96	59	69	100	83	116
09	E2699	79	114	88	95	100	96	110
10	E2699DL	78	111	88	97	102	100	107
11	E2700	78	91	70	89	101	97	108
12	E2698MS	33 *	107	103	86	101	91	111
13	E2698MSD	5 *	110	46 *	94	103	99	108
14	VBLKT1	83	93	74	88	100	93	107
15	VHBLKT1	83	109	87	82	100	93	109
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

	QC LIMITS
VDMC1 (VCL) = Vinyl chloride-d3	(65-131)
VDMC2 (CLA) = Chloroethane-d5	(71-131)
VDMC3 (DCE) = 1,1-Dichloroethene-d2	(55-104)
VDMC4 (BUT) = 2-Butanone-d5	(49-155)
VDMC5 (CLF) = Chloroform-d	(78-121)
VDMC6 (DCA) = 1,2-Dichloroethane-d4	(78-129)
VDMC7 (BEN) = Benzene-d6	(77-124)

Column to be used to flag recovery values
* Values outside of contract required QC limits

2B - FORM II VOA-2

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Level: (TRACE or LOW) TRACE

	EPA SAMPLE NO.	VDMC8 (DPA) #	VDMC9 (TOL) #	VDMC10 (TDP) #	VDMC11 (HEX) #	VDMC12 (TCA) #	VDMC13 (DCZ) #	VDMC14 #	TOT OUT
01	E2692	101	109	100	85	94	96		0
02	E2693	103	110	101	83	91	93		0
03	E2694	102	110	100	84	91	94		0
04	E2695	103	108	105	92	98	99		0
05	E2696	101	107	103	93	95	99		0
06	E2697	99	107	102	94	107	102		0
07	E2697DL	99	105	102	95	111	100		0
08	E2698	98	95	87	69	82	95		1
09	E2699	102	106	105	94	107	103		0
10	E2699DL	101	104	105	93	110	100		0
11	E2700	99	105	103	85	99	98		0
12	E2698MS	99	100	97	87	99	95		1
13	E2698MSD	100	88	101	91	105	98		2
14	VBLKT1	97	105	100	82	95	100		0
15	VHBLKT1	100	107	95	82	101	102		0
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

	QC LIMITS
VDMC8 (DPA) = 1,2-Dichloropropane-d6	(79-124)
VDMC9 (TOL) = Toluene-d8	(77-121)
VDMC10 (TDP) = trans-1,3-Dichloropropene-d4	(73-121)
VDMC11 (HEX) = 2-Hexanone-d5	(28-135)
VDMC12 (TCA) = 1,1,2,2-Tetrachloroethane-d2	(73-125)
VDMC13 (DCZ) = 1,2-Dichlorobenzene-d4	(80-131)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3A - FORM III VOA-1

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix Spike - EPA Sample No.: E2698 Level: (TRACE or LOW) TRACE

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC #	QC LIMITS REC.
1,1-Dichloroethene	5.0	0.0	5.1	103	61-145
Trichloroethene	5.0	0.084	4.9	97	71-120
Benzene	5.0	0.0	4.9	98	76-127
Toluene	5.0	0.0	4.2	84	76-125
Chlorobenzene	5.0	0.0	4.5	90	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC #	%RPD #	QC LIMITS	
					RPD	REC.
1,1-Dichloroethene	5.0	2.7	54 *	62 *	0-14	61-145
Trichloroethene	5.0	5.1	101	4	0-14	71-120
Benzene	5.0	5.2	104	6	0-11	76-127
Toluene	5.0	4.0	79	6	0-13	76-125
Chlorobenzene	5.0	4.9	98	8	0-13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 5 outside limits

Spike Recovery: 1 out of 10 outside limits

COMMENTS: _____

4A - FORM IV VOA

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKT1

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Lab File ID: PT66BLK Lab Sample ID: 191641

Instrument ID: 5972-P

Matrix: (SOIL/SED/WATER) WATER Date Analyzed: 11/09/2010

Level: (TRACE or LOW/MED) TRACE Time Analyzed: 15:21

GC Column: DB624 ID: 0.53 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E2698	1030829007	PT67E698	15:52
02	E2692	1030829001	PT68E692	16:23
03	E2693	1030829002	PT69E693	16:55
04	E2694	1030829003	PT70E694	17:27
05	E2695	1030829004	PT71E695	17:58
06	E2696	1030829005	PT72E696	18:29
07	E2700	1030829011	PT73E700	19:00
08	E2698MS	1030829008	PT74E698	19:31
09	E2698MSD	1030829009	PT75E698	20:02
10	E2697DL	1030829006DL	PT75E697	20:33
11	E2699DL	1030829010DL	PT76E699	21:05
12	E2697	1030829006	PT77E697	21:36
13	E2699	1030829010	PT78E699	22:08
14	VHBLKT1	191642	PT79HBLK	22:40
15				
16				
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30				

COMMENTS: _____

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: SDG No.: E2692

GC Column: DB624 ID: 0.53 (mm) Init. Calib. Date(s): 11/06/2010 11/06/2010

EPA Sample No.(VSTD#####): VSTD005T1 Date Analyzed: 11/09/2010

Lab File ID (Standard): PT65S05 Time Analyzed: 14:41

Instrument ID: 5972-P Heated Purge: (Y/N) N

		IS1 (CBZ) AREA	#	RT	#	IS2 (DFB) AREA	#	RT	#	IS3 (DCB) AREA	#	RT	#
	12 HOUR STD	2030703		12.84		2853214		8.85		964512		16.19	
	UPPER LIMIT	2842984		13.17		3994500		9.18		1350317		16.52	
	LOWER LIMIT	1218422		12.51		1711928		8.52		578707		15.86	
	EPA SAMPLE NO.												
01	VBLKT1	2196331		12.86		3083364		8.87		1049707		16.20	
02	E2698	2078695		12.85		3136736		8.85		845187		16.22	
03	E2692	2140658		12.83		3164687		8.83		870357		16.19	
04	E2693	2098905		12.84		3087538		8.85		801337		16.20	
05	E2694	2027475		12.85		2981394		8.86		744053		16.19	
06	E2695	2198911		12.85		3187767		8.85		870168		16.22	
07	E2696	2065781		12.87		2922856		8.87		888212		16.23	
08	E2700	2178740		12.84		3033346		8.85		952259		16.19	
09	E2698MS	2191522		12.84		3162882		8.85		843803		16.21	
10	E2698MSD	2175977		12.87		3028598		8.87		935212		16.23	
11	E2697DL	2231368		12.86		3092809		8.87		982806		16.21	
12	E2699DL	2228508		12.85		3070536		8.87		954063		16.21	
13	E2697	2070059		12.87		2939393		8.86		926686		16.23	
14	E2699	2193038		12.88		3104258		8.88		964508		16.23	
15	VHBLKT1	2096902		12.84		2971466		8.87		961918		16.20	
16													
17													
18													
19													
20													
21													
22													

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = + 0.50 (Low-Medium Volatiles) and + 0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = - 0.50 (Low-Medium Volatiles) and - 0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2692

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829001

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT68E692

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
TB 75-15-0	Carbon disulfide	1.0 ~~0.53~~	~~J~~ U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.43	J
56-23-5	Carbon tetrachloride	0.50	U
TB 71-43-2	Benzene	0.50 ~~0.31~~	~~J~~ U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

ACA 12-5-10

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2692

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829001

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT68E692

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	0.092	J
108-87-2	Methylcyclohexane	0.47	J
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	1.0 ~~1.0~~ 0.68	~~U~~ U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	5.3	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.20	J
95-47-6	o-Xylene	0.13	J
179601-23-1	m,p-Xylene	0.50 ~~0.56~~	~~J~~ U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

ACH 12-7-10 12-10-10

ACH 12-5-10

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E2692

Lab Name: ALS Laboratory Group Contract: EPW05026
Lab Code: DATAC Case No.: 40752 Mod. Ref No.: SDG No.: E2692
Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829001
Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT68E692
Level: (TRACE or LOW/MED) TRACE Date Received: 11/04/2010
% Moisture: not dec. Date Analyzed: 11/09/2010
GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)
CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A	2.6	J

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2693

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829002

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT69E693

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.47	J
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50 ~~0.27~~	~~J~~ U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

ACA 12-5-10

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2693

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829002

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT69E693

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	0.091	J
108-87-2	Methylcyclohexane	0.51	
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	1.0 to 0.64	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	4.2	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.21	J
95-47-6	o-Xylene	0.14	J
179601-23-1	m,p-Xylene	0.50 0.32	J U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

ACH 12-5-10

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E2693

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829002

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT69E693

Level: (TRACE or LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A	2.9	J

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2694

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829003

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT70E694

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	10.0 ~~5.5~~	U
75-15-0	Carbon disulfide	0.5 ~~0.059~~	~~J~~ U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.63	
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50 ~~0.33~~	~~J~~ U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

ACH 12-5-10

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2694

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829003

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT70E694

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	0.19	J
108-87-2	Methylcyclohexane	0.74	
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	1.0 1.0 0.79	U U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	1.9	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.27	J
95-47-6	o-Xylene	0.16	J
179601-23-1	m,p-Xylene	0.5 0.37	J U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50 0.34	JB U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

ack 12-7-10 12-10-10

ack 12-5-10

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E2694

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829003

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT70E694

Level: (TRACE or LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A	3.8	J

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2695

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829004

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT71E695

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
TB 67-64-1	Acetone	10 ~~8.5~~	~~U~~
TB 75-15-0	Carbon disulfide	0.5 ~~0.073~~	~~J~~ U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.48	J
56-23-5	Carbon tetrachloride	0.50	U
TB 71-43-2	Benzene	0.5 ~~0.30~~	~~J~~ U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

AOA 12-5-10

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2695

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829004

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT71E695

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	0.19	J
108-87-2	Methylcyclohexane	0.51	
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	1.0 1.0 0.67	U U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	1.6	
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.21	J
95-47-6	o-Xylene	0.13	J
179601-23-1	m,p-Xylene	0.5 0.29	J U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

ACH 12-5-10

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E2695

Lab Name: ALS Laboratory Group | Contract: EPW05026

Lab Code: DATAC | Case No.: 40752 | Mod. Ref No.: | SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 1030829004

Sample wt/vol: 25.0 (g/mL) mL | Lab File ID: PT71E695

Level: (TRACE or LOW/MED) TRACE | Date Received: 11/04/2010

% Moisture: not dec. | Date Analyzed: 11/09/2010

GC Column: DB624 | ID: 0.53 (mm) | Dilution Factor: 1.0

Soil Extract Volume: (uL) | Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A	3.0	J

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2696

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829005

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT72E696

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

	CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
	75-71-8	Dichlorodifluoromethane	0.50	U
	74-87-3	Chloromethane	0.50	U
	75-01-4	Vinyl chloride	0.50	U
	74-83-9	Bromomethane	0.50	U
	75-00-3	Chloroethane	0.50	U
	75-69-4	Trichlorofluoromethane	0.50	U
	75-35-4	1,1-Dichloroethene	0.50	U
	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
	67-64-1	Acetone	5.0	U
TB	75-15-0	Carbon disulfide	0.50 ~~0.051~~	~~J~~ U
	79-20-9	Methyl acetate	0.50	U
	75-09-2	Methylene chloride	0.50	U
	156-60-5	trans-1,2-Dichloroethene	0.50	U
	1634-04-4	Methyl tert-butyl ether	0.50	U
	75-34-3	1,1-Dichloroethane	0.50	U
	156-59-2	cis-1,2-Dichloroethene	0.50	U
	78-93-3	2-Butanone	5.0	U
	74-97-5	Bromochloromethane	0.50	U
	67-66-3	Chloroform	0.50	U
	71-55-6	1,1,1-Trichloroethane	0.50	U
	110-82-7	Cyclohexane	0.27	J
	56-23-5	Carbon tetrachloride	0.50	U
TB	71-43-2	Benzene	0.50 ~~0.29~~	~~J~~ U
	107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

ACH
12-5-10

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2696

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829005

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT72E696

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.28	J
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	1.0 LO 0.55	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50 0.31	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.15	J
95-47-6	o-Xylene	0.098	J
179601-23-1	m,p-Xylene	0.5 0.22	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

ACH 12-7-10 12-10-10

ACH 12-5-10

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E2696

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829005

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT72E696

Level: (TRACE or LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2697

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829006

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT77E697

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
TB 67-64-1	Acetone	10.0 ~~7.5~~	U
TB 75-15-0	Carbon disulfide	0.5 ~~0.084~~	~~J~~ U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.14	J
56-23-5	Carbon tetrachloride	0.50	U
TB 71-43-2	Benzene	0.5 ~~0.16~~	~~J~~ U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

ACA 12-5-10

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2697

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829006

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT77E697

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	11.	
108-87-2	Methylcyclohexane	0.18	J
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
TB 108-88-3	Toluene	1.0 ~~0.30~~	~~J~~ U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	58.	E
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.096	J
95-47-6	o-Xylene	0.069	J
TB 179601-23-1	m,p-Xylene	0.5 ~~0.15~~	~~J~~ U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

ACH 12-5-10

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E2697

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829006

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT77E697

Level: (TRACE or LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2697DL

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829006DL

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT75E697

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	2.5	U
74-87-3	Chloromethane	2.5	U
75-01-4	Vinyl chloride	2.5	U
74-83-9	Bromomethane	2.5	U
75-00-3	Chloroethane	2.5	U
75-69-4	Trichlorofluoromethane	2.5	U
75-35-4	1,1-Dichloroethene	2.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U
67-64-1	Acetone	25.	U
75-15-0	Carbon disulfide	2.5	U
79-20-9	Methyl acetate	2.5	U
75-09-2	Methylene chloride	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U
1634-04-4	Methyl tert-butyl ether	2.5	U
75-34-3	1,1-Dichloroethane	2.5	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
78-93-3	2-Butanone	25.	U
74-97-5	Bromochloromethane	2.5	U
67-66-3	Chloroform	2.5	U
71-55-6	1,1,1-Trichloroethane	2.5	U
110-82-7	Cyclohexane	2.5	U
56-23-5	Carbon tetrachloride	2.5	U
71-43-2	Benzene	2.5	U
107-06-2	1,2-Dichloroethane	2.5	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2697DL

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829006DL

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT75E697

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	11.	D
108-87-2	Methylcyclohexane	2.5	U
78-87-5	1,2-Dichloropropane	2.5	U
75-27-4	Bromodichloromethane	2.5	U
10061-01-5	cis-1,3-Dichloropropene	2.5	U
108-10-1	4-Methyl-2-Pentanone	25.	U
108-88-3	Toluene	2.5 0.38	JD U
10061-02-6	trans-1,3-Dichloropropene	2.5	U
79-00-5	1,1,2-Trichloroethane	2.5	U
127-18-4	Tetrachloroethene	58.	D
591-78-6	2-Hexanone	25.	U
124-48-1	Dibromochloromethane	2.5	U
106-93-4	1,2-Dibromoethane	2.5	U
108-90-7	Chlorobenzene	2.5	U
100-41-4	Ethylbenzene	2.5	U
95-47-6	o-Xylene	2.5	U
179601-23-1	m,p-Xylene	2.5	U
100-42-5	Styrene	2.5	U
75-25-2	Bromoform	2.5	U
98-82-8	Isopropylbenzene	2.5	U
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U
541-73-1	1,3-Dichlorobenzene	2.5	U
106-46-7	1,4-Dichlorobenzene	2.5	U
95-50-1	1,2-Dichlorobenzene	2.5	U
96-12-8	1,2-Dibromo-3-chloropropane	2.5	U
120-82-1	1,2,4-Trichlorobenzene	2.5	U
87-61-6	1,2,3-Trichlorobenzene	2.5	U

TB

ACA 12-5-10

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E2697DL

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829006DL

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT75E697

Level: (TRACE or LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
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19					
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22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2698

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829007

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT67E698

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

	CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
	75-71-8	Dichlorodifluoromethane	0.50	U
TB	74-87-3	Chloromethane	0.5 ~~0.10~~	~~U~~ U
	75-01-4	Vinyl chloride	0.50	U
	74-83-9	Bromomethane	0.50	U
	75-00-3	Chloroethane	0.50	U
	75-69-4	Trichlorofluoromethane	0.50	U
	75-35-4	1,1-Dichloroethene	0.50	U
	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
TB	67-64-1	Acetone	10.0 ~~2.2~~	~~U~~ U
	75-15-0	Carbon disulfide	0.50	U
	79-20-9	Methyl acetate	0.50	U
	75-09-2	Methylene chloride	0.50	U
	156-60-5	trans-1,2-Dichloroethene	0.50	U
	1634-04-4	Methyl tert-butyl ether	0.50	U
	75-34-3	1,1-Dichloroethane	0.50	U
	156-59-2	cis-1,2-Dichloroethene	0.14	J
	78-93-3	2-Butanone	5.0	U
	74-97-5	Bromochloromethane	0.50	U
	67-66-3	Chloroform	3.7	
	71-55-6	1,1,1-Trichloroethane	0.50	U
	110-82-7	Cyclohexane	0.50	U
	56-23-5	Carbon tetrachloride	0.50	U
	71-43-2	Benzene	0.50	U
	107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

ACA 12-5-10

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2698

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829007

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT67E698

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	0.084	J
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	5.4	
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.2	
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	1.8	
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E2698

Lab Name: ALS Laboratory Group | Contract: EPW05026

Lab Code: DATAC | Case No.: 40752 | Mod. Ref No.: | SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 1030829007

Sample wt/vol: 25.0 (g/mL) mL | Lab File ID: PT67E698

Level: (TRACE or LOW/MED) TRACE | Date Received: 11/04/2010

% Moisture: not dec. | Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) | Dilution Factor: 1.0

Soil Extract Volume: (uL) | Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2698MS

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829008

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT74E698

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

	CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
	75-71-8	Dichlorodifluoromethane	0.50	U
1B	74-87-3	Chloromethane	0.50 ~~0.21~~	~~J~~ U
	75-01-4	Vinyl chloride	0.50	U
	74-83-9	Bromomethane	0.056	J
	75-00-3	Chloroethane	0.50	U
	75-69-4	Trichlorofluoromethane	0.50	U
	75-35-4	1,1-Dichloroethene	5.1	
	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
1B	67-64-1	Acetone	10 ~~3.8~~	~~J~~ U
	75-15-0	Carbon disulfide	0.50	U
	79-20-9	Methyl acetate	0.50	U
	75-09-2	Methylene chloride	0.50	U
	156-60-5	trans-1,2-Dichloroethene	0.50	U
	1634-04-4	Methyl tert-butyl ether	0.50	U
	75-34-3	1,1-Dichloroethane	0.50	U
	156-59-2	cis-1,2-Dichloroethene	0.16	J
	78-93-3	2-Butanone	5.0	U
	74-97-5	Bromochloromethane	0.50	U
	67-66-3	Chloroform	3.8	
	71-55-6	1,1,1-Trichloroethane	0.50	U
	110-82-7	Cyclohexane	0.50	U
	56-23-5	Carbon tetrachloride	0.50	U
	71-43-2	Benzene	4.9	
	107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

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12-5-10

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2698MS

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829008

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT74E698

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	4.9	
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	5.6	
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	4.2	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.7	
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	4.5	
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	2.3	
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2698MSD

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829009

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT75E698

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
TB 74-87-3	Chloromethane	0.50 ~~0.12~~	~~J~~ U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	2.7	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
TB 67-64-1	Acetone	10 ~~2.8~~	~~J~~ U
TB 75-15-0	Carbon disulfide	0.5 ~~0.26~~	~~J~~ U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.16	J
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	4.1	
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	5.2	
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

ACH 12-5-10

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2698MSD

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829009

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT75E698

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	5.1	
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	6.0	
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	4.0	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	6.3	
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	4.9	
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	2.3	
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2699

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829010

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT78E699

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
TB 67-64-1	Acetone	10 ~~9.5~~	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

act 12-5-10

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2699

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829010

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT78E699

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	2.2	
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	77.	E
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.12	J
95-47-6	o-Xylene	0.13	J
TB 179601-23-1	m,p-Xylene	0.5 ~~0.45~~	~~J~~ U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

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12-5-10

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E2699

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829010

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT78E699

Level: (TRACE or LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2699DL

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829010DL

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT76E699

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	50.	U
75-15-0	Carbon disulfide	5.0	U
79-20-9	Methyl acetate	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	50.	U
74-97-5	Bromochloromethane	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2699DL

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829010DL

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT76E699

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	2.4	JD
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	50.	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	82.	D
591-78-6	2-Hexanone	50.	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
95-47-6	o-Xylene	5.0	U
TB 179601-23-1	m,p-Xylene	5.0 ~~0.54~~	~~JD~~ U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U

acd 12-5-10

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E2699DL

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829010DL

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT76E699

Level: (TRACE or LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2700

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829011

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT73E700

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.086	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	56.	
75-15-0	Carbon disulfide	0.097	J
79-20-9	Methyl acetate	0.50	U
SB 75-09-2	Methylene chloride	1.0 ~~0.060~~	~~J~~ V
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	2.7	J
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.094	J
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

ACH 12-5-10

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E2700

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829011

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT73E700

Level: (TRACE/LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.19	J
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.086	J
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.38	J
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E2700

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 1030829011

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT73E700

Level: (TRACE or LOW/MED) TRACE Date Received: 11/04/2010

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
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07					
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25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKT1

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 191641

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT66BLK

Level: (TRACE/LOW/MED) TRACE Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKT1

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 191641

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT66BLK

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.061	J
87-61-6	1,2,3-Trichlorobenzene	0.098	J

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKT1

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 191641

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT66BLK

Level: (TRACE or LOW/MED) TRACE Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
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21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLKT1

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 191642

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT79HBLK

Level: (TRACE/LOW/MED) TRACE Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.15	J
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLKT1

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 191642

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT79HBLK

Level: (TRACE/LOW/MED) TRACE Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.064	J
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.083	J
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.060	J
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLKT1

Lab Name: ALS Laboratory Group Contract: EPW05026

Lab Code: DATAC Case No.: 40752 Mod. Ref No.: _____ SDG No.: E2692

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 191642

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: PT79HBLK

Level: (TRACE or LOW/MED) TRACE Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/09/2010

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
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19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
	E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY ~ REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Sample Delivery Group: 40752 CERCLIS No: OHN000510489
Case No: 40752 Site Name/Location: Mullins Rubber Products (OH)
Contractor or EPA Lab: ALS Group Data User: OEPA
No. of Samples: 9 Date Sampled or Date Received: 18 NOV 2010

Have Chain-of-Custody records been received? Yes ✓ No
Have traffic reports or packing lists been received? Yes ✓ No
If no, are traffic reports or packing list numbers written on the Chain-of-Custody Record?
Yes ____ No ____
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? Yes ✓ No
No of samples claimed: 9 No. of samples received:
Received by: [signature] Date: 18 NOV 2010
Received by LSSS: [signature] Date: 22 NOV 2010
Review started: Dec 5, 2010 Reviewer Signature: Allison C Harvey
Total time spent on review: 11.5 hrs Date review completed: Dec 7, 2010
Copied by: A. C. Harvey Date: Dec 10, 2010
Mailed to user by: [signature] Date: 13 Dec 2010

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ML-10C

Data received by: Date:

Data review received by: Date:

Inorganic Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
Organic Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
Dioxin data Complete	[ ] Suitable for Intended Purpose [ ] T if OK
SAS Data Complete	[ ] Suitable for Intended Purpose [ ] T if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files. Date:

ESAT Controlled Number: 8SAT5.217.00332-pj 13Dec2010

DATE: December 13, 2010

Ohio EPA Field Office
ATTN: **Mr. Ed Link**
4675 Homer Ohio Lane
Groveport, OH 43125

SITE NAME: Mullins Rubber Products (OH) - **level 3 data validation**

Case	Lab	Samples	SDG	Matrix
40752	ALS Lab Group	9	E2692	water

Analysis: trace volatiles

Upon receipt of data, please check each package for completeness and note any missing deliverables below.

PLEASE! Send this form back to Sylvia Griffin, Data Management Coordinator after filling in the blanks below.

Data Received by:_____ Date:_____

PROBLEMS:

Please indicate if data is complete, and note if there are any deliverables missing from the cases noted above.

_____

_____

Received by Data Management Coordinator, CRL for file.

Signature:_____ Date:_____

FROM: **U.S. EPA - Region 5**
Sylvia Griffin
Chicago Regional Laboratory
536 S. Clark, 10th Floor
Chicago, IL 60605

Sent By: Pat Joyner
Data Coordinator
ESAT Region 5 – **TechLaw Inc.**

Appendix C

Analytical Results – Microbac Environmental Laboratory

158 Starlite Drive, Marietta, OH 45750 • T:740-373-4071 • F:740-373-4835 • http://www.microbac.com

Laboratory Report Number: L10120658

Client: Randy Watterworth, 401 East Fifth Street, Dayton, OH, 45402

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories.

Review and compilation of your report was completed by Microbac's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box below at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

Kathy Albertson	*Team Chemist/Data Specialist*	Kathy.Albertson@microbac.com
Stephanie Mossburg	*Team Chemist/Data Specialist*	Stephanie.Mossburg@microbac.com
Tony Long	*Team Chemist/Data Specialist*	Tony.Long@microbac.com
Amanda Fickiesen	*Client Services Specialist*	Amanda.Fickiesen@microbac.com
Annie Brown	*Client Services Specialist*	Annie.Brown@microbac.com

This report was reviewed on January 03, 2011.

Amanda Fickiesen

Amanda Fickiesen - Client Services Specialist

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on January 03, 2011.

David E. Vandenberg

David Vandenberg - Managing Director

State of origin: Ohio
Accrediting authority: N/A ID:N/A
QAPP: Microbac OVD
This report contains a total of 27 pages.

Look closer. Go further. Do more.

LABORATORY REPORT

L10120658

01/03/11 14:59

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Ohio Environmental Protection Agency
401 East Fifth Street

Dayton, OH 45402
Attention: Randy Watterworth

Project Number: 2755.037
Project: DERR
Site: SOUTHWEST DISTRICT OFFICE

P.O. Number: EPA01-000002715

Sample Summary

Client ID	Lab ID	Date Collected	Date Received
GW-7A	L10120658-01	12/20/2010 10:18	12/21/2010
TRIP BLANK	L10120658-02	12/20/2010	12/21/2010

L1_A_PROD_COVER - Modified 02/06/2008
PDF File ID: 1883488
Report generated: 01/03/2011 14:59

Login Number: L10120658

Department: Login

Analyst: N/A
Analyst #2: N/A

Chain of Custody:

Shipment Conditions

COC #	Cooler #	Temperature
COC18210	0015225	4.0

Sample Management: All three vials of trip blanks headspace >6mm

Sample Identification

Lab ID	Client ID
L10120658-01	GW-7A
L10120658-02	TRIP BLANK

Narrative ID: 18021
Approved By: Amanda Fickiesen
Amanda Fickiesen

Login Number: L10120658

Department: Volatiles

Analyst: Mary Schilling
Analyst #2: N/A

METHOD

Preparation SW-846 5030C/5035A

Analysis SW-846 8260B

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: The percent difference was out of range for the following analytes: Vinyl Acetate. Please see the applicable QC report for a detailed presentation of the failures.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: Recoveries out of range were observed for the following analytes: Chloromethane. Please see the applicable QC report for a detailed presentation of the failures.

Matrix Spikes: The MS/MSD results were not associated with this sample delivery group (SDG), due to insufficient volume of sample. The laboratory included an LCS and LCS duplicate in the preparation batch in lieu of the NELAC prescribed MS/MSD. Microbac Laboratories recommends site specific MS/MSD samples to avoid possible data qualifications.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Other: None.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak. In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak. This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline. There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous. Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 18738
Approved By: Michael Albertson

Report Number: **L10120658**
Report Date : **January 3, 2011**

Sample Number: **L10120658-01**
Client ID: **GW-7A**
Matrix: **Water**
Workgroup Number: **WG352235**
Collect Date: **12/20/2010 10:18**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS8**
Prep Date: **12/22/2010 15:58**
Cal Date: **12/03/2010 19:48**
Run Date: **12/22/2010 15:58**
File ID: **8M366851**

Analyte	CAS. Number	Result	Qual	RL	MDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3	1.53		1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4	0.516	J	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4	156		1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6	6.18		1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L10120658**
Report Date : **January 3, 2011**

Sample Number: **L10120658-01**
Client ID: **GW-7A**
Matrix: **Water**
Workgroup Number: **WG352235**
Collect Date: **12/20/2010 10:18**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS8**
Prep Date: **12/22/2010 15:58**
Cal Date: **12/03/2010 19:48**
Run Date: **12/22/2010 15:58**
File ID: **8M366851**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6	0.545	J	1.00	0.250
m-,p-Xylene	179601-23-1	1.95		1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	107	86	118	
1,2-Dichloroethane-d4	97.6	80	120	
Toluene-d8	101	88	110	
4-Bromofluorobenzene	101	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

Sample Number: **L10120658-02**
Client ID: **TRIP BLANK**
Matrix: **Water**
Workgroup Number: **WG352235**
Collect Date: **12/20/2010 00:01**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS8**
Prep Date: **12/22/2010 12:17**
Cal Date: **12/03/2010 19:48**
Run Date: **12/22/2010 12:17**
File ID: **8M366844**

Analyte	CAS. Number	Result	Qual	RL	MDL
Acetone	67-64-1	4.03	J	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.500
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7	1.22		1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250

Report Number: **L10120658**
Report Date : **January 3, 2011**

Sample Number: **L10120658-02**
Client ID: **TRIP BLANK**
Matrix: **Water**
Workgroup Number: **WG352235**
Collect Date: **12/20/2010 00:01**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B/5030C/5035**
Analytical Method: **8260B**
Analyst: **MES**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS8**
Prep Date: **12/22/2010 12:17**
Cal Date: **12/03/2010 19:48**
Run Date: **12/22/2010 12:17**
File ID: **8M366844**

Analyte	CAS. Number	Result	Qual	RL	MDL
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.200
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	179601-23-1		U	1.00	0.500

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	108	86	118	
1,2-Dichloroethane-d4	98.5	80	120	
Toluene-d8	101	88	110	
4-Bromofluorobenzene	100	86	115	

U Not detected at or above adjusted sample detection limit
J The analyte was positively identified, but the quantitation was below the RL

Microbac Laboratories Inc.
Analyst Listing
January 3, 2011

ADC – ANTHONY D. CANTER	AJF – AMANDA J. FICKIESEN	ALB – ANNIE L. BROWN
ALV – AMY L. VALENTINE	AML – TONY M. LONG	AZH – AFTER HOURS
BLG – BRENDA L. GREENWALT	BRG – BRENDA R. GREGORY	CAA – CASSIE A. AUGENSTEIN
CAF – CHERYL A. FLOWERS	CEB – CHAD E. BARNES	CLC – CHRYS L. CRAWFORD
CLS – CARA L. STRICKLER	CLW – CHARISSA L. WINTERS	CPD – CHAD P. DAVIS
CSH – CHRIS S. HILL	DDE – DEBRA D. ELLIOTT	DEL – DON E. LIGHTFRITZ
DEV – DAVID E. VANDENBERG	DGB – DOUGLAS G. BUTCHER	DIH – DEANNA I. HESSON
DLB – DAVID L. BUMGARNER	DLP – DOROTHY L. PAYNE	DLR – DIANNA L. RAUCH
ECL – ERIC C. LAWSON	EDA – ERIN D. AGEE	ERP – ERIN R. PORTER
FJB – FRANCES J. BOLDEN	HAV – HEMA VILASAGAR	HJR – HOLLY J. REED
JAL – JOHN A. LENT	JBK – JEREMY B. KINNEY	JDH – JUSTIN D. HESSON
JKT – JANE K. THOMPSON	JWR – JOHN W. RICHARDS	JWS – JACK W. SHEAVES
JYH – JI Y. HU	KEB – KATIE E. BARNES	KHR – KIM H. RHODES
KRA – KATHY R. ALBERTSON	LKN – LINDA K. NEDEFF	LSB – LESLIE S. BUCINA
MDA – MIKE D. ALBERTSON	MDC – MIKE D. COCHRAN	MES – MARY E. SCHILLING
MMB – MAREN M. BEERY	MRT – MICHELLE R. TAYLOR	MSW – MATT S. WILSON
PDM – PIERCE D. MORRIS	PWD – PAUL W. DENT	RAH – ROY A. HALSTEAD
RB – BOB BUCHANAN	REK – BOB E. KYER	RLK – ROBIN L. KLINGER
RWC – RODNEY W. CAMPBELL	SLM – STEPHANIE L. MOSSBURG	SLP – SHERI L. PFALZGRAF
TIP – TAE I. PARRISH	TMB – TIFFANY M. BAILEY	TMM – TAMMY M. MORRIS
VC – VICKI COLLIER	WJB – WILL J. BEASLEY	WTD – WADE T. DELONG

Microbac Laboratories Inc.
List of Valid Qualifiers
January 03, 2011

Qualkey: STD_ND=U

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
C	Confirmed by GC/MS
CG	Confluent growth
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	The analyte was positively identified, but the quantitation was below the RL
J,B	Analyte detected in both the method blank and sample above the MDL.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Not detected at or above adjusted sample detection limit
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

*****Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound an are matrix dependent.

Organic QA/QC

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L10120658	Work Group:	WG352235
Blank File ID:	8M366840	Blank Sample ID:	WG352235-01
Prep Date:	12/22/10 10:12	Instrument ID:	HPMS8
Analyzed Date:	12/22/10 10:12	Method:	8260B
Analyst:	MES		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG352235-02	8M366841	12/22/10 10:43	01
TRIP BLANK	L10120658-02	8M366844	12/22/10 12:17	01
GW-7A	L10120658-01	8M366851	12/22/10 15:58	01

Report Name: BLANK_SUMMARY
PDF File ID: 1883397
Report generated 01/03/2011 13:55

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L10120658 Prep Date: 12/22/10 10:12 Sample ID: WG352235-01
Instrument ID: HPMS8 Run Date: 12/22/10 10:12 Prep Method: 5030B/5030C/503
File ID: 8M366840 Analyst: MES Method: 8260B
Workgroup (AAB#): WG352235 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS8-03-DEC-10

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.500	1.00	0.500	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name:BLANK
PDF ID: 1883398
03-JAN-2011 13:55

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L10120658 Prep Date: 12/22/10 10:12 Sample ID: WG352235-01
Instrument ID: HPMS8 Run Date: 12/22/10 10:12 Prep Method: 5030B/5030C/503
File ID: 8M366840 Analyst: MES Method: 8260B
Workgroup (AAB#): WG352235 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS8-03-DEC-10

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.200	1.00	0.200	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	106	86 - 118	PASS
1,2-Dichloroethane-d4	96.7	80 - 120	PASS
Toluene-d8	101	88 - 110	PASS
4-Bromofluorobenzene	102	86 - 115	PASS

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name:BLANK
PDF ID: 1883398
03-JAN-2011 13:55

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10120658 Run Date: 12/22/2010 Sample ID: WG352235-02
Instrument ID: HPMS8 Run Time: 10:43 Prep Method: 5030B/5030C/503
File ID: 8M366841 Analyst: MES Method: 8260B
Workgroup (AAB#): WG352235 Matrix: Water Units: ug/L
QC Key: STD Lot#: STD42965 Cal ID: HPMS8-03-DEC-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Acetone	20.0	20.3	102	40 - 180	
Benzene	20.0	21.9	109	80 - 121	
Bromobenzene	20.0	21.8	109	80 - 120	
Bromochloromethane	20.0	23.7	118	65 - 130	
Bromodichloromethane	20.0	21.5	108	80 - 131	
Bromoform	20.0	20.5	103	70 - 130	
Bromomethane	20.0	23.8	119	30 - 145	
2-Butanone	20.0	19.2	96.1	10 - 170	
n-Butylbenzene	20.0	23.2	116	80 - 131	
sec-Butylbenzene	20.0	23.6	118	80 - 127	
tert-Butylbenzene	20.0	22.5	112	80 - 126	
Carbon disulfide	20.0	20.7	104	58 - 128	
Carbon tetrachloride	20.0	22.0	110	65 - 140	
Chlorobenzene	20.0	21.3	107	80 - 120	
Chlorodibromomethane	20.0	21.3	107	60 - 135	
Chloroethane	20.0	23.0	115	60 - 135	
2-Chloroethyl vinyl ether	20.0	21.3	107	45 - 160	
Chloroform	20.0	21.6	108	80 - 125	
Chloromethane	20.0	26.3	131	40 - 125	*
2-Chlorotoluene	20.0	22.5	112	80 - 127	
4-Chlorotoluene	20.0	20.7	103	80 - 126	
1,2-Dibromo-3-chloropropane	20.0	18.2	90.9	50 - 130	
1,2-Dibromoethane	20.0	21.2	106	80 - 129	
Dibromomethane	20.0	21.3	107	75 - 125	
1,2-Dichlorobenzene	20.0	21.5	108	80 - 125	
1,3-Dichlorobenzene	20.0	21.6	108	80 - 120	
1,4-Dichlorobenzene	20.0	21.3	107	80 - 120	
Dichlorodifluoromethane	20.0	25.4	127	40 - 160	
1,1-Dichloroethane	20.0	21.3	106	80 - 125	
1,2-Dichloroethane	20.0	21.0	105	80 - 129	
1,1-Dichloroethene	20.0	20.6	103	80 - 132	
cis-1,2-Dichloroethene	20.0	23.4	117	70 - 125	
trans-1,2-Dichloroethene	20.0	22.0	110	80 - 127	
1,2-Dichloropropane	20.0	21.5	107	80 - 120	
1,3-Dichloropropane	20.0	19.5	97.6	80 - 120	
2,2-Dichloropropane	20.0	22.6	113	80 - 133	
cis-1,3-Dichloropropene	20.0	22.1	110	70 - 130	
trans-1,3-Dichloropropene	20.0	19.1	95.5	80 - 130	
1,1-Dichloropropene	20.0	22.1	111	75 - 130	
Ethylbenzene	20.0	22.2	111	80 - 122	
2-Hexanone	20.0	18.4	92.0	55 - 130	

LCS - Modified 03/06/2008
PDF File ID: 1876560
Report generated: 01/03/2011 13:55

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L10120658 Run Date: 12/22/2010 Sample ID: WG352235-02
Instrument ID: HPMS8 Run Time: 10:43 Prep Method: 5030B/5030C/503
File ID: 8M366841 Analyst: MES Method: 8260B
Workgroup (AAB#): WG352235 Matrix: Water Units: ug/L
QC Key: STD Lot#: STD42965 Cal ID: HPMS8-03-DEC-10

Analytes	Expected	Found	% Rec	LCS Limits	Q
Hexachlorobutadiene	20.0	19.5	97.6	72 - 132	
Isopropylbenzene	20.0	20.4	102	80 - 122	
p-Isopropyltoluene	20.0	22.3	111	80 - 122	
4-Methyl-2-pentanone	20.0	18.5	92.4	64 - 140	
Methylene chloride	20.0	20.9	105	80 - 123	
Naphthalene	20.0	21.4	107	59 - 149	
n-Propylbenzene	20.0	22.3	111	80 - 129	
Styrene	20.0	23.3	116	80 - 123	
1,1,1,2-Tetrachloroethane	20.0	21.9	110	80 - 130	
1,1,2,2-Tetrachloroethane	20.0	19.9	99.5	79 - 125	
Tetrachloroethene	20.0	21.7	108	80 - 124	
Toluene	20.0	21.7	108	80 - 124	
1,2,3-Trichlorobenzene	20.0	20.6	103	55 - 140	
1,2,4-Trichlorobenzene	20.0	19.9	99.3	65 - 135	
1,1,1-Trichloroethane	20.0	22.5	112	80 - 134	
1,1,2-Trichloroethane	20.0	21.3	107	80 - 125	
Trichloroethene	20.0	24.5	122	80 - 122	
Trichlorofluoromethane	20.0	24.5	122	62 - 151	
1,2,3-Trichloropropane	20.0	20.4	102	75 - 125	
1,2,4-Trimethylbenzene	20.0	22.7	113	80 - 125	
1,3,5-Trimethylbenzene	20.0	23.2	116	80 - 127	
Vinyl acetate	20.0	14.8	74.1	10 - 190	
Vinyl chloride	20.0	25.7	129	50 - 170	
o-Xylene	20.0	22.7	114	80 - 122	
m-,p-Xylene	40.0	45.9	115	80 - 122	

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	107	86 - 118	PASS
1,2-Dichloroethane-d4	96.5	80 - 120	PASS
Toluene-d8	101	88 - 110	PASS
4-Bromofluorobenzene	103	86 - 115	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 1876560
Report generated: 01/03/2011 13:55

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L10120658
Instrument Id: HPMS8
Workgroup (AAB#): WG352235

Method: 8260
CAL ID: HPMS8-03-DEC-10
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L10120658-01	1.00	01	97.6	107	101	101
L10120658-02	1.00	01	98.5	108	100	101
WG352235-01	1.00	01	96.7	106	102	101
WG352235-02	1.00	01	96.5	107	103	101
WG352235-06	1.00	01	98.6	109	102	101

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	80	-	120
2 - Dibromofluoromethane	86	-	118
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 1883404
Report generated: 01/03/2011 13:55

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L10120658 Run Date: 12/22/2010 Sample ID: WG352234-02
Instrument ID: HPMS8 Run Time: 09:09 Method: 8260B
File ID: 8M366838 Analyst: MES QC Key: STD
Workgroup (AAB#): WG352235 Cal ID: HPMS8 - 03-DEC-10
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloroform	CCC	50.0	52.3	ug/L	0.505	4.63	20	
1,1-Dichloroethene	CCC	50.0	51.2	ug/L	0.397	2.41	20	
1,2-Dichloropropane	CCC	50.0	52.0	ug/L	0.226	4.03	20	
Ethylbenzene	CCC	50.0	53.1	ug/L	0.530	6.15	20	
Toluene	CCC	50.0	50.4	ug/L	1.28	0.765	20	
Vinyl Chloride	CCC	50.0	53.5	ug/L	0.256	6.98	20	
Bromoform	SPCC	50.0	49.0	ug/L	0.225	2.03	40	
Chlorobenzene	SPCC	50.0	50.4	ug/L	0.974	0.830	40	
Chloromethane	SPCC	50.0	46.2	ug/L	0.215	7.57	40	
1,1-Dichloroethane	SPCC	50.0	51.1	ug/L	0.437	2.21	40	
1,1,2,2-Tetrachloroethane	SPCC	50.0	45.8	ug/L	0.368	8.30	40	
Acetone		50.0	43.3	ug/L	0.0414	13.3	40	
Benzene		50.0	51.6	ug/L	0.993	3.15	40	
Bromobenzene		50.0	50.8	ug/L	0.758	1.55	40	
Bromochloromethane		50.0	54.4	ug/L	0.209	8.88	40	
Bromodichloromethane		50.0	52.4	ug/L	0.390	4.70	40	
Bromomethane		50.0	53.8	ug/L	0.189	7.61	40	
2-Butanone		50.0	44.6	ug/L	0.0546	10.9	40	
n-Butylbenzene		50.0	56.0	ug/L	2.03	12.1	40	
sec-Butylbenzene		50.0	56.1	ug/L	2.65	12.2	40	
tert-Butylbenzene		50.0	53.6	ug/L	0.516	7.22	40	
Carbon Disulfide		50.0	52.8	ug/L	0.761	5.68	40	
Carbon Tetrachloride		50.0	53.4	ug/L	0.481	6.88	40	
Dibromochloromethane		50.0	50.6	ug/L	0.371	1.18	40	
Chloroethane		50.0	51.3	ug/L	0.155	2.53	40	
2-Chloroethyl Vinyl Ether		50.0	52.4	ug/L	0.115	4.86	40	
2-Chlorotoluene		50.0	51.0	ug/L	1.97	2.02	40	
4-Chlorotoluene		50.0	51.6	ug/L	1.77	3.28	40	
1,2-Dibromo-3-Chloropropane		50.0	41.9	ug/L	0.0766	16.3	40	
1,2-Dibromoethane		50.0	47.6	ug/L	0.239	4.84	40	
Dibromomethane		50.0	49.3	ug/L	0.143	1.42	40	
1,2-Dichlorobenzene		50.0	50.3	ug/L	1.37	0.574	40	
1,3-Dichlorobenzene		50.0	51.7	ug/L	1.52	3.41	40	
1,4-Dichlorobenzene		50.0	51.2	ug/L	1.54	2.37	40	
Dichlorodifluoromethane		50.0	37.2	ug/L	0.248	25.5	40	
1,2-Dichloroethane		50.0	49.0	ug/L	0.370	2.00	40	
cis-1,2-Dichloroethene		50.0	54.0	ug/L	0.296	8.06	40	
trans-1,2-Dichloroethene		50.0	53.0	ug/L	0.341	6.01	40	
1,3-Dichloropropane		50.0	44.9	ug/L	0.361	10.2	40	
2,2-Dichloropropane		50.0	57.8	ug/L	0.509	15.7	40	
cis-1,3-Dichloropropene		50.0	52.2	ug/L	0.428	4.46	40	
trans-1,3-Dichloropropene		50.0	47.7	ug/L	0.438	4.61	40	

CCV - Modified 03/05/2008
PDF File ID: 1883402
Report generated 01/03/2011 13:55

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L10120658 Run Date: 12/22/2010 Sample ID: WG352234-02
Instrument ID: HPMS8 Run Time: 09:09 Method: 8260B
File ID: 8M366838 Analyst: MES QC Key: STD
Workgroup (AAB#): WG352235 Cal ID: HPMS8 - 03-DEC-10
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloropropene		50.0	52.8	ug/L	0.380	5.55	40	
2-Hexanone		50.0	43.1	ug/L	0.0470	13.8	40	
Hexachlorobutadiene		50.0	47.2	ug/L	0.400	5.50	40	
Isopropylbenzene		50.0	54.9	ug/L	1.61	9.76	40	
p-Isopropyltoluene		50.0	56.6	ug/L	2.56	13.3	40	
4-Methyl-2-Pentanone		50.0	45.2	ug/L	0.0449	9.55	40	
Methylene Chloride		50.0	48.9	ug/L	0.258	2.23	40	
Naphthalene		50.0	47.4	ug/L	1.75	5.29	40	
n-Propylbenzene		50.0	53.5	ug/L	2.97	7.06	40	
Styrene		50.0	54.5	ug/L	1.06	8.99	40	
1,1,1,2-Tetrachloroethane		50.0	52.0	ug/L	0.398	3.93	40	
Tetrachloroethene		50.0	52.4	ug/L	0.329	4.81	40	
1,2,3-Trichlorobenzene		50.0	47.3	ug/L	0.809	5.32	40	
1,2,4-Trichlorobenzene		50.0	48.9	ug/L	0.987	2.20	40	
1,1,1-Trichloroethane		50.0	54.5	ug/L	0.507	9.04	40	
1,1,2-Trichloroethane		50.0	48.3	ug/L	0.222	3.41	40	
Trichloroethene		50.0	58.0	ug/L	0.368	16.1	40	
Trichlorofluoromethane		50.0	56.8	ug/L	0.547	13.6	40	
1,2,3-Trichloropropane		50.0	46.6	ug/L	0.134	6.72	40	
1,2,4-Trimethylbenzene		50.0	52.8	ug/L	2.31	5.55	40	
1,3,5-Trimethylbenzene		50.0	53.1	ug/L	2.24	6.16	40	
Vinyl Acetate		50.0	62.7	ug/L	0.262	25.4	40	
o-Xylene		50.0	52.8	ug/L	0.642	5.68	40	
m-,p-Xylene		100	107	ug/L	0.650	6.58	40	
1,2-Dichloroethene		100	107	ug/L	0.319	7.03	40	
Xylenes		150	159	ug/L	0.646	6.28	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1883402
Report generated 01/03/2011 13:55

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO CCV)

Login Number: L10120658
Instrument ID: HPMS8
Workgroup (AAB#): WG352235

CCV Number: WG352234-02
CAL ID: HPMS8-03-DEC-10
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG352234-02	NA	NA	368033	594700	656993
Upper Limit	NA	NA	736066	1189400	1313986
Lower Limit	NA	NA	184017	297350	328497
L10120658-01	1.00	01	347860	566292	608645
L10120658-02	1.00	01	352211	571300	616767
WG352235-01	1.00	01	354408	580353	628655
WG352235-02	1.00	01	358464	575379	638440
WG352235-03	1.00	01	349243	565156	602039
WG352235-04	1.00	01	353983	575524	615273
WG352235-05	1.00	01	352145	576764	615465
WG352235-06	1.00	01	353586	575056	613580

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD - Modified 03/06/2008
PDF File ID: 1883403
Report generated 01/03/2011 13:55

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO CCV)

Login Number: L10120658
Instrument ID: HPMS8
Workgroup (AAB#): WG352235

CCV Number: WG352234-02
CAL ID: HPMS8-03-DEC-10
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG352234-02	NA	NA	17.24	14.23	10.38
Upper Limit	NA	NA	17.74	14.73	10.88
Lower Limit	NA	NA	16.74	13.73	9.88
L10120658-01	1.00	01	17.24	14.23	10.38
L10120658-02	1.00	01	17.24	14.24	10.38
WG352235-01	1.00	01	17.24	14.23	10.39
WG352235-02	1.00	01	17.24	14.24	10.38
WG352235-03	1.00	01	17.24	14.24	10.38
WG352235-04	1.00	01	17.24	14.23	10.39
WG352235-05	1.00	01	17.24	14.23	10.38
WG352235-06	1.00	01	17.24	14.23	10.39

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT - Modified 03/06/2008
PDF File ID: 1883405
Report generated 01/03/2011 13:55

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS8 Dataset: 120310
Analyst1: MES Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 624 SOP: MSV10 Rev: 12
Method: 5030C/5035A SOP: PAT01 Rev: 8
Maintenance Log ID: 35765

Internal Standard: STD42470 Surrogate Standard: STD24270
CCV: NA LCS: STD42691 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG350384

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	8M366277	BFB CHECK OTHER FILAMENT	NA	1	1	STD42302	12/03/10 07:39
2	8M366278	BFB CHECK OTHER FILAMENT-RETUNE	NA	1	1	STD42302	12/03/10 08:11
3	8M366279	BFB CHECK OTHER FILAMENT-RETUNE	NA	1	1	STD42302	12/03/10 08:32
4	8M366280	BFB CHECK OTHER FILAMENT-RETUNE	NA	1	1	STD42302	12/03/10 08:46
5	8M366283	RINSE	NA	1	1		12/03/10 10:16
6	8M366284	RINSE	NA	1	1		12/03/10 11:52
7	8M366285	WG350384-01 50NG BFB STD 8260	NA	1	1	STD42302	12/03/10 12:18
8	8M366286	WG350384-02 0.3 ug/L WATER STD 8260	NA	1	1	STD42831	12/03/10 12:48
9	8M366288	WG350384-04 1 ug/L WATER STD 8260	NA	1	1	STD42831	12/03/10 14:05
10	8M366289	WG350384-01 50NG BFB STD 8260	NA	1	1	STD42302	12/03/10 14:44
11	8M366290	WG350384-02 0.3 ug/L WATER STD 8260	NA	1	1	STD42831	12/03/10 15:03
12	8M366291	WG350384-03 0.4 ug/L WATER STD 8260	NA	1	1	STD42831	12/03/10 15:34
13	8M366292	WG350384-04 1 ug/L WATER STD 8260	NA	1	1	STD42831	12/03/10 16:06
14	8M366293	WG350384-05 2 ug/L WATER STD 8260	NA	1	1	STD42831	12/03/10 16:40
15	8M366294	WG350384-06 5 ug/L WATER STD 8260	NA	1	1	STD42831	12/03/10 17:11
16	8M366295	WG350384-07 20 ug/L WATER STD 8260	NA	1	1	STD42831	12/03/10 17:42
17	8M366296	WG350384-08 50 ug/L WATER STD 8260	NA	1	1	STD42831	12/03/10 18:14
18	8M366297	WG350384-09 100 ug/L WATER STD 8260	NA	1	1	STD42831	12/03/10 18:45
19	8M366298	WG350384-10 200 ug/L WATER STD 8260	NA	1	1	STD42831	12/03/10 19:16
20	8M366299	WG350384-11 300 ug/L WATER STD 8260	NA	1	1	STD42831	12/03/10 19:48
21	8M366300	RINSE	NA	1	1		12/03/10 21:59
22	8M366301	WG350384-12 50ug/L ALT SOURCE	NA	1	1	STD42691	12/03/10 22:30

Approved: December 16, 2010

Page: 1

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS8 Dataset: 122210
Analyst1: MES Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 14
Method: 5030B/5030C/5035A SOP: PAT01 Rev: 12
Method: 624 SOP: MSV10 Rev: 8
Maintenance Log ID: 35889

Internal Standard: STD43010 Surrogate Standard: STD43010
CCV: STD43093 LCS: STD42965 MS/MSD: STD42965

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: 352235

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	8M366836	WG352234-01 50NG BFB STD 8260	NA	1	1	STD42808	12/22/10 08:06
2	8M366837	WG352234-02 50ug/L WATER STD 8260	NA	1	1		12/22/10 08:31
3	8M366838	WG352234-02 50ug/L WATER STD 8260	NA	1	1		12/22/10 09:09
4	8M366839	RINSE	NA	1	1		12/22/10 09:40
5	8M366840	WG352235-01 VBLK1222 BLANK 8260	NA	1	1		12/22/10 10:12
6	8M366841	WG352235-02 20ug/L LCS 8260	NA	1	1	STD42965	12/22/10 10:43
7	8M366842	WG351344-01 FBLK1213 BLANK 8260 10	NA	17	10		12/22/10 11:14
9	8M366844	L10120658-02 A 826-LOW	7	1	1		12/22/10 12:17
13	8M366848	L10120653-01 A 826-SPE	<2	1	1		12/22/10 14:23
14	8M366849	L10120653-02 A 826-SPE	<2	1	1		12/22/10 14:55
15	8M366850	L10120595-01 B 826-LOW	<2	1	1		12/22/10 15:26
16	8M366851	L10120658-01 A 826-LOW	<2	1	1		12/22/10 15:58
17	8M366852	L10120657-04 A 100X 826-SPE2	4	12	100		12/22/10 16:29
18	8M366853	RINSE	NA	1	1		12/22/10 17:00
19	8M366854	RINSE	NA	1	1		12/22/10 17:32
20	8M366855	WG352235-06 624 BLANK	NA	2	1		12/22/10 18:03
21	8M366856	L10120675-10 B 5X 624	<2	2	5		12/22/10 18:35
22	8M366857	L10120674-03 A 624-SPE3	<2	2	1		12/22/10 19:06
23	8M366858	L10120657-04 A 5X 826-SPE2	4	12	5		12/22/10 19:37
24	8M366859	L10120674-04 A 624-SPE3	<2	2	1		12/22/10 20:09
25	8M366860	L10120675-03 A 624	<2	2	1		12/22/10 20:40
26	8M366861	L10120675-16 A 624-SPE	<2	2	1		12/22/10 21:11
27	8M366862	L10120675-17 A 624-SPE	<2	2	1		12/22/10 21:43
28	8M366863	L10120715-01 A 624-SPE5	7	2	1		12/22/10 22:14
29	8M366864	RINSE	NA	1	1		12/22/10 22:45
30	8M366865	RINSE	NA	1	1		12/22/10 23:17
31	8M366866	RINSE	NA	1	1		12/22/10 23:48
33	8M366845	L10120668-01 A 826-SPE	NA	1	1		12/22/10 12:49
34	8M366846	L10120668-02 MS A 826-SPE	NA	1	1	STD42965	12/22/10 13:20
35	8M366847	L10120668-03 MSD A 826-SPE	NA	1	1	STD42965	12/22/10 13:52
36	8M366843	L10120670-02 A 826-SPE	NA	1	1		12/22/10 11:46

Comments

Approved: December 27, 2010

Page: 1

Microbac Laboratories Inc.

Instrument Run Log

Instrument:	HPMS8	Dataset:	122210		
Analyst1:	MES	Analyst2:	NA		
Method:	8260B	SOP:	MSV01	Rev:	14
Method:	5030B/5030C/5035A	SOP:	PAT01	Rev:	12
Method:	624	SOP:	MSV10	Rev:	8
Maintenance Log ID:	35889				

Internal Standard:	STD43010	Surrogate Standard:	STD43010		
CCV:	STD43093	LCS:	STD42965	MS/MSD:	STD42965

Column 1 ID: RTX502.2 Column 2 ID: NA

Workgroups: 352235

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
File ID: 8M366837				
	dnr -rr			
17	X	5	Analyzed too dilute	
File ID: 8M366852				
	dnr			
23				
File ID: 8M366858				
	Unable to run less dilute.			

Approved: December 27, 2010

COC No. A 18210

158 Starlite Drive
Marietta, OH 45750

Microbac

Phone: 740-373-4071
Fax: 740-373-4835

CHAIN-OF-CUSTODY RECORD

Company Name: Ohio EPA

Project Contact: Kelly Kaletsky | Contact Phone #: 937-285-6441

Turn Around Requirements: 2 wks | Location: Riverside/Dayton, OH

Project ID: MSW20101220! SITE

Sampler (print): Kelly Kaletsky | Signature: Kelly Kaletsky

Program: ☐ CWA ☐ RCRA ☐ DOD ☐ AFCEE ☒ Other DERR

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	Method 8260 Low	[redacted]	3 Trip Blanks	TOTAL # (LAB USE)	ADDITIONAL REQUIREMENTS
GW-7A		X	12/20/10	10:18	W	3				3		

Relinquished by: (Signature) Kelly Kaletsky | Date 12/20/10 | Time 11:00

Relinquished by: (Signature) | Date | Time

Microbac OVD
Received: 12/21/2010 09:26
By: BRENDA GREENWALT
221000011245
Brenda Greenwalt

Date | Time | Received by: (Signature)

Remarks: Send back cooler
[redacted]
Ups tracking - 1Z401663 22 [redacted] 011 2394

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

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126

1000011245

COOLER INSPECTION

Received: 12/21/2010 09:26
Delivery Method: UPS
Opened By: Brenda Greenwalt
Comments:

Login(s): L10120658|

Cooler(s)

Cooler #	Temp Gun	Temp	Tracking #	COC #	Comments
0015225	H	4.0	1Z4016632210112394	COC18210	

1	Yes	Were shipping coolers sealed?
2	Yes	Were custody seals intact?
3	Yes	Were cooler temperatures in range of 0-6?
4	Yes	Was ice present?
5	Yes	Were COC's received/information complete/signed and dated?
6	Yes	Were sample containers and labels intact and match COC?
7	Yes	Were the correct containers and volumes received?
8	Yes	Were samples received within EPA hold times?
9	Yes	Were correct perservatives used? (water only)
10	NA	Were pH ranges acceptable? (voa's excluded)
11	No	Were VOA samples free of headspace (less than 6mm)?

Discrepancies:

11	All three vials of trip blanks headspace >6mm	Please proceed with analysis.

Microbac - Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750
Tel: (740)373-4071 Fax: (740)373-4835

Internal Chain of Custody Report

Login: L10120658
Account: 2755
Project: 2755.037
Samples: 2
Due Date: 03-JAN-2011

Samplenum	Container ID	Products
L10120658-01	780967	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	21-DEC-2010 10:46	JKT	
2	ANALYZ	V1	ORG4	21-DEC-2010 15:44	PWD	JKT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	21-DEC-2010 10:46	JKT	
2	ANALYZ	V1	ORG4	21-DEC-2010 15:44	PWD	JKT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	21-DEC-2010 10:46	JKT	
2	ANALYZ	V1	ORG4	21-DEC-2010 15:44	PWD	JKT

Samplenum	Container ID	Products
L10120658-02	780968	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	21-DEC-2010 10:46	JKT	
2	ANALYZ	V1	ORG4	21-DEC-2010 15:44	PWD	JKT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	21-DEC-2010 10:46	JKT	
2	ANALYZ	V1	ORG4	21-DEC-2010 15:44	PWD	JKT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	21-DEC-2010 10:46	JKT	
2	ANALYZ	V1	ORG4	21-DEC-2010 15:44	PWD	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Appendix E

Well Logs

Water Well Log and Drilling Report

Ohio Department of Natural Resources
Division of Water
Phone: 614-265-6740 Fax: 614-265-6767

Well Log Number: 693135 [redacted]

ORIGINAL OWNER AND LOCATION

Original Owner Name: *MULLINS RUBBER*
County: *MONTGOMERY* **Township:** *MADRIVER* **Section Number:** *24*
Address: *2949 VALLEY ST* **Lot Number:**
City: **State:** *OH* **Zip Code:**
Location Number: **Location Map Year:** **Location Area:**
Latitude: **Longitude:**

CONSTRUCTION DETAILS

Borehole Diameter: 1: **Borehole Depth:** 1: *130 ft.* **Depth to Bedrock:**
2: 2: *130 ft.*
Casing Diameter: 1: *6.63 in.* **Casing Length:** 1: *120 ft.* **Casing Thickness:** 1:
2: 2: *120 ft.* 2:
Casing Height Above Ground: **Aquifer Type:** *SAND AND GRAVEL*
Date of Completion: *3/28/1989* **Total Depth:** *130 ft.* **Well Use:** *HTG/COOLING*
Driller's Name: *LOTTS WELL DRILLING*
Screen Diameter: **Slot Size:** **Screen Length:**
Type: **Material:**
Set Between:
Gravel Pack Material/Size: **Vol/Wt Used:**
Method of Installation: **Placed:**
Grout Material/Size: **Vol/Wt Used:**
Method of Installation: **Placed**

WELL TEST DETAILS

Static Water Level: *65 ft.* **Test Rate:** *120 gpm* **Associated Reports**
Drawdown: *6 ft.* **Test Duration:** *3 hrs.* *NONE*
COMMENTS: *NONE*

WELL LOG

Formations	From	To
TOP SOIL	0	3
DRY GRAVEL	3	32
SAND & GRAVEL	32	51
BLUE CLAY	51	116
SAND & GRAVEL	116	130
WATER AT		51
WATER AT		130

Printing Tips (opens in new window)

[redacted]

Well log questions - Web site questions - Web policies

Water Well Log and Drilling Report

Ohio Department of Natural Resources
Division of Water
Phone: 614-265-6740 Fax: 614-265-6767

Well Log Number: 388390 [redacted]

ORIGINAL OWNER AND LOCATION

Original Owner Name: *MULLINS RUBBER PRODU*
County: *MONTGOMERY* **Township:** *MADRIVER* **Section Number:**
Address: *2949 VALLEY PI* **Lot Number:**
City: **State:** *OH* **Zip Code:**
Location Number: *138* **Location Map Year:** *1983* **Location Area:**
Latitude: *39.797841* **Longitude:** *-84.13213*

CONSTRUCTION DETAILS

Borehole Diameter: 1: **Borehole Depth:** 1: *111 ft.* **Depth to Bedrock:**
2: 2: *111 ft.*
Casing Diameter: 1: *5.63 in.* **Casing Length:** 1: *111 ft.* **Casing Thickness:** 1:
2: 2: *111 ft.* 2:
Casing Height Above Ground: **Aquifer Type:** *GRAVEL*
Date of Completion: *6/8/1969* **Total Depth:** *111 ft.* **Well Use:**
Driller's Name: *LOTTS A E & SON*
Screen Diameter: **Slot Size:** **Screen Length:**
Type: **Material:**
Set Between:
Gravel Pack Material/Size: **Vol/Wt Used:**
Method of Installation: **Placed:**
Grout Material/Size: **Vol/Wt Used:**
Method of Installation: **Placed**

WELL TEST DETAILS

Static Water Level: *21 ft.* **Test Rate:** *100 gpm* **Associated Reports**
Drawdown: *3 ft.* **Test Duration:** *1 hrs.* *NONE*
COMMENTS: *NONE*

WELL LOG

Formations	From	To
TOP SOIL	0	3
DRY GRAVEL	3	36
GRAVEL	36	47
BLUE CLAY	47	111
WATER AT		47

Printing Tips (opens in new window)

[redacted]

Well log questions - Web site questions - Web policies

Water Well Log and Drilling Report

Ohio Department of Natural Resources
Division of Water
Phone: 614-265-6740 Fax: 614-265-6767

Well Log Number: 438258 [redacted]

ORIGINAL OWNER AND LOCATION

Original Owner Name: *MULLIN RUBBER CO.*
County: *MONTGOMERY* **Township:** *MADRIVER* **Section Number:**
Address: *2949 VALLEY PI* **Lot Number:**
City: **State:** *OH* **Zip Code:**
Location Number: *138* **Location Map Year:** *1983* **Location Area:**
Latitude: *39.797841* **Longitude:** *-84.13213*

CONSTRUCTION DETAILS

Borehole Diameter: 1: **Borehole Depth:** 1: *50 ft.* **Depth to Bedrock:**
2: 2: *50 ft.*
Casing Diameter: 1: *5.63 in.* **Casing Length:** 1: *50 ft.* **Casing Thickness:** 1:
2: 2: *50 ft.* 2:
Casing Height Above Ground: **Aquifer Type:** *GRAVEL*
Date of Completion: *7/11/1972* **Total Depth:** *50 ft.* **Well Use:**
Driller's Name: *LOTTS A E & SON*
Screen Diameter: **Slot Size:** **Screen Length:**
Type: **Material:**
Set Between:
Gravel Pack Material/Size: **Vol/Wt Used:**
Method of Installation: **Placed:**
Grout Material/Size: **Vol/Wt Used:**
Method of Installation: **Placed**

WELL TEST DETAILS

Static Water Level: **Test Rate:** *50 gpm* **Associated Reports**
Drawdown: **Test Duration:** *NONE*
COMMENTS: *NONE*

WELL LOG

Formations	From	To
TOP SOIL	0	5
DRY GRAVEL	5	25
BLUE CLAY	25	37
GRAVEL	37	50
WATER AT		50

Printing Tips (opens in new window)

[redacted]

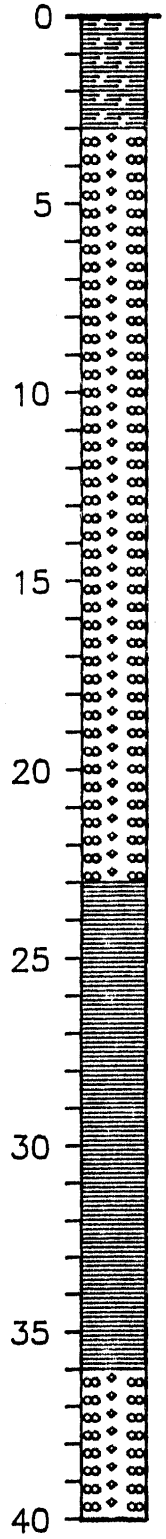
Well log questions - Web site questions - Web policies

Geraghty & Miller, Inc.

WELL LOG

DEPTH FT.

EL 774.4



DESCRIPTION

TOP SOIL (A)

GRAVEL (B)

CLAY (C)

GRAVEL (D)

(A) Dark brown silt and clay with organic material.

(B) Well rounded sand, gravel, cobbles and boulders.

(C) Light gray sandy clay with gravel and cobbles.

(D) Sand, gravel and cobbles with traces of gray sandy clay.

(E) Gray sandy clay.

(F) Fine to coarse sand and gravel.

(G) Gray shale with weathered zones near top of formation. Limestone bed at 145 feet.

WELL ID MR106D 1/4

LEGEND

Well Screen

Well Bottom

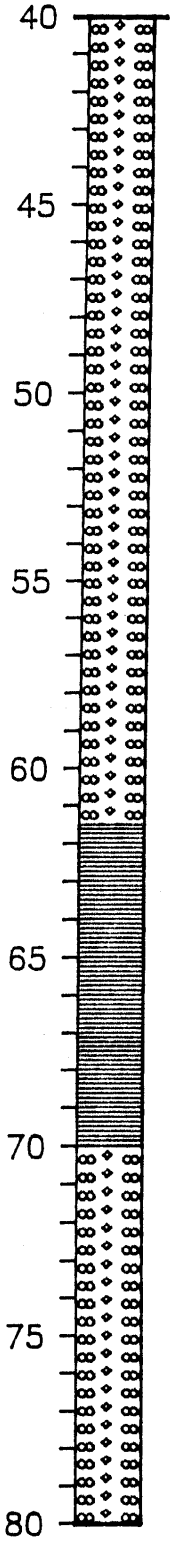
DATE LOGGED 11-04-86

LOGGED BY KJC,LCH

INTERPRETED BY DMB

Geraghty & Miller, Inc.

WELL LOG



WELL ID MR106D 2/4

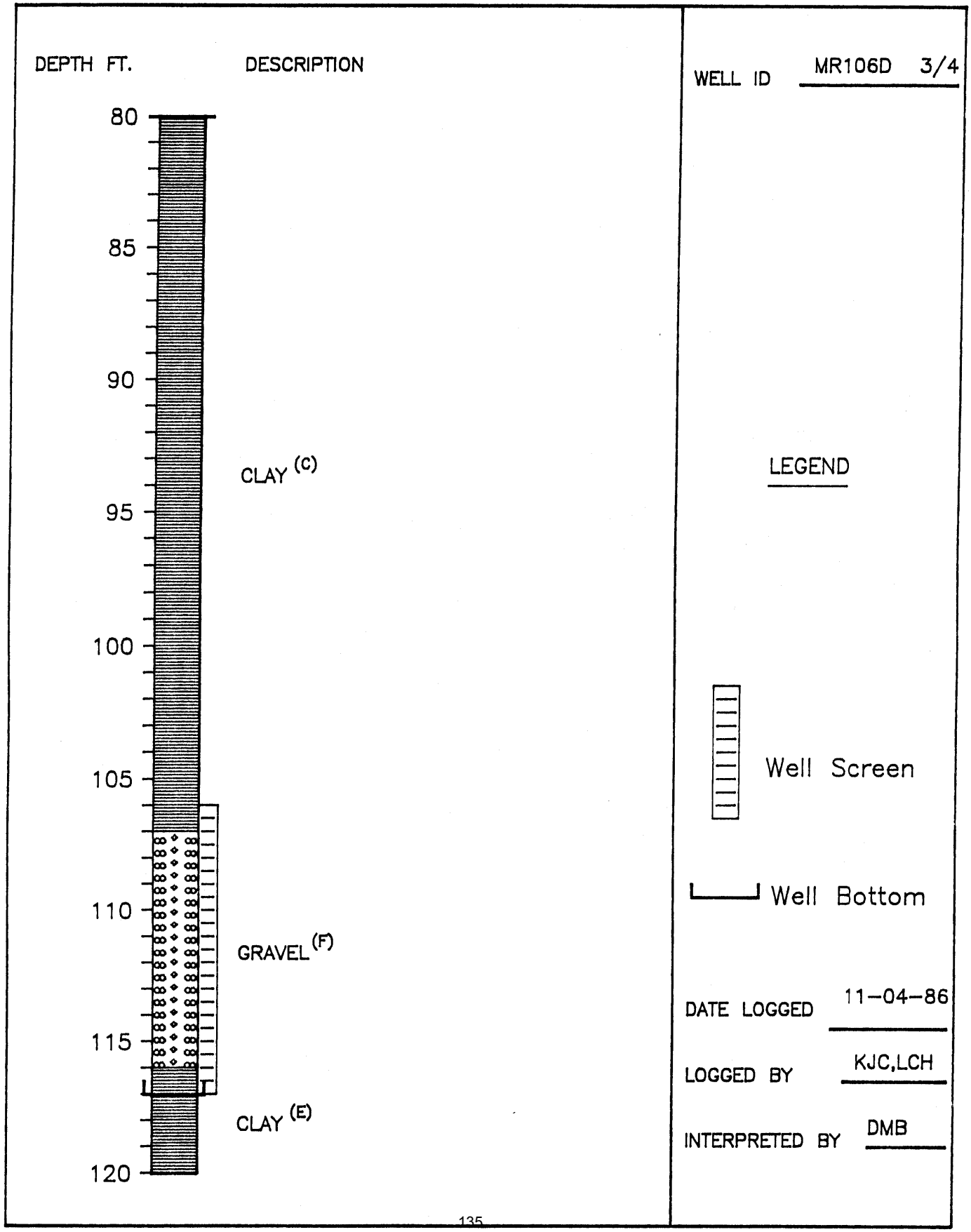
DATE LOGGED 11-04-86

LOGGED BY KJC,LCH

INTERPRETED BY DMB

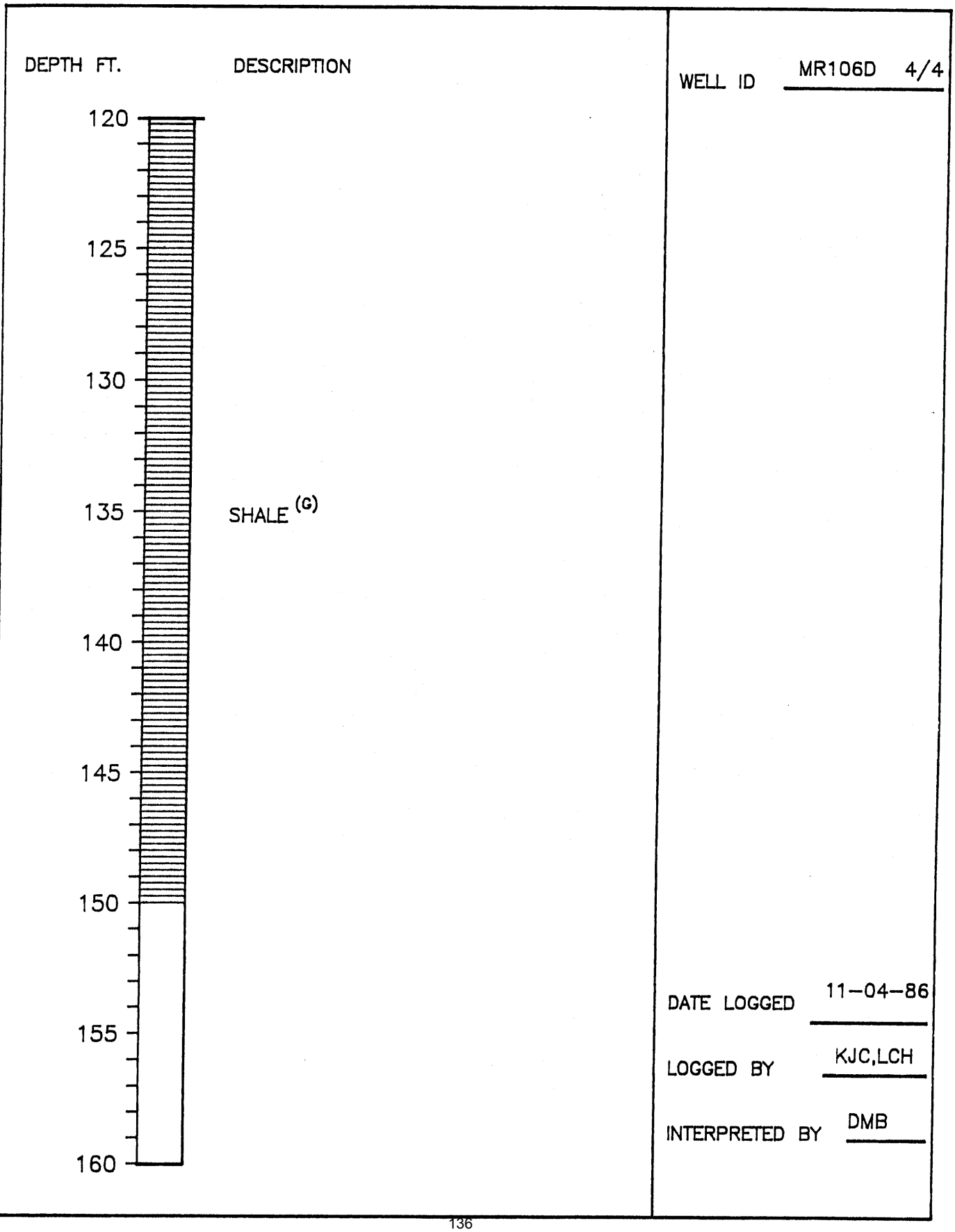
Geraghty & Miller, Inc.

WELL LOG



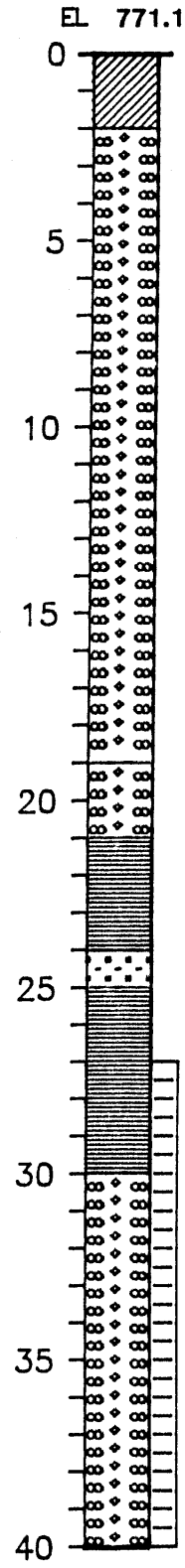
Geraghty & Miller, Inc.

WELL LOG



Geraghty & Miller, Inc.

WELL LOG



DESCRIPTION

(A) Medium gravel with sand.

(B) Medium gravel and sand with lenses of clay.

(C) Light gray sandy clay with gravel.

(D) Cobbles and boulders.

WELL ID MR105S 1/2

LEGEND

Well Screen

Well Bottom

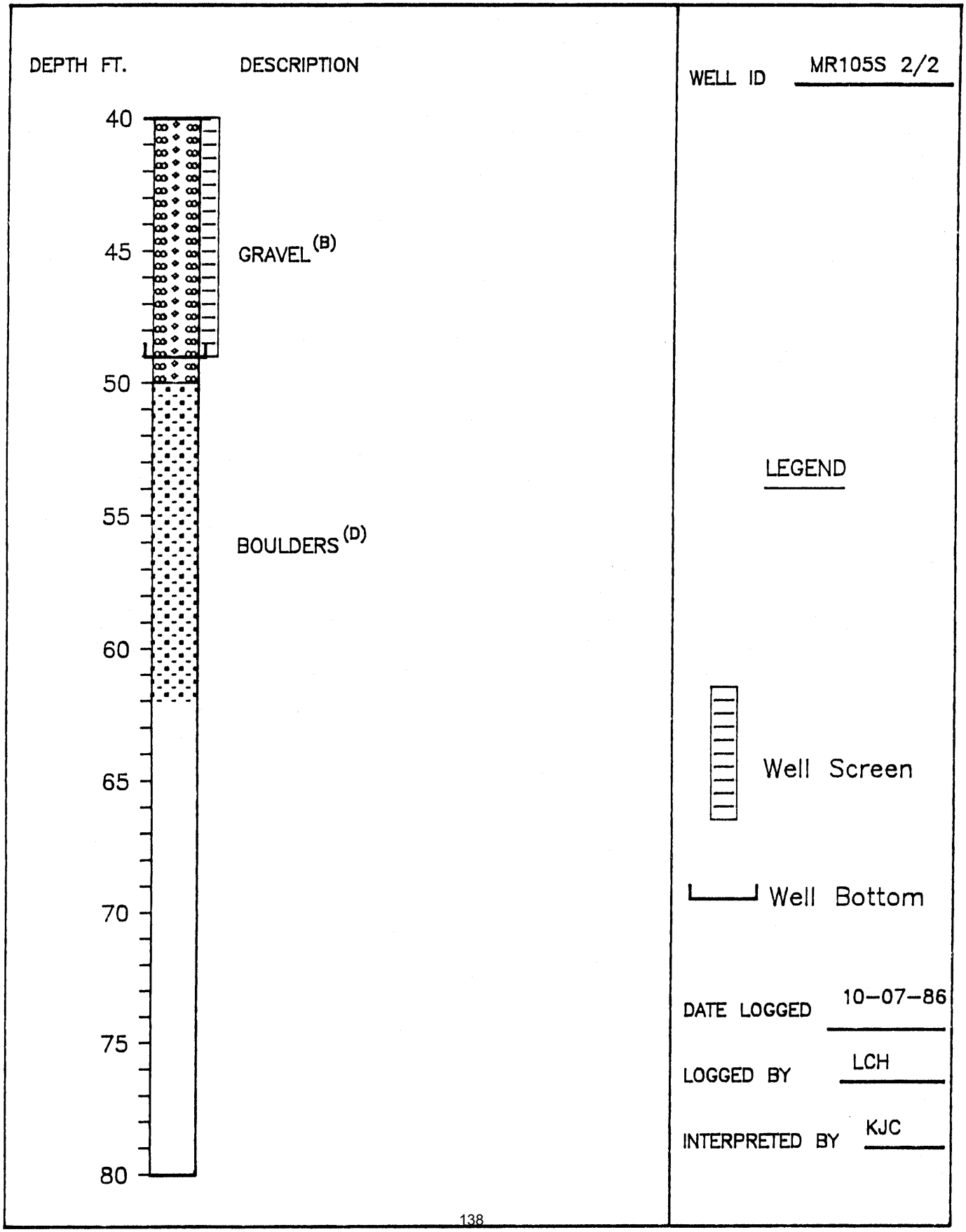
DATE LOGGED 10-07-86

LOGGED BY LCH

INTERPRETED BY KJC

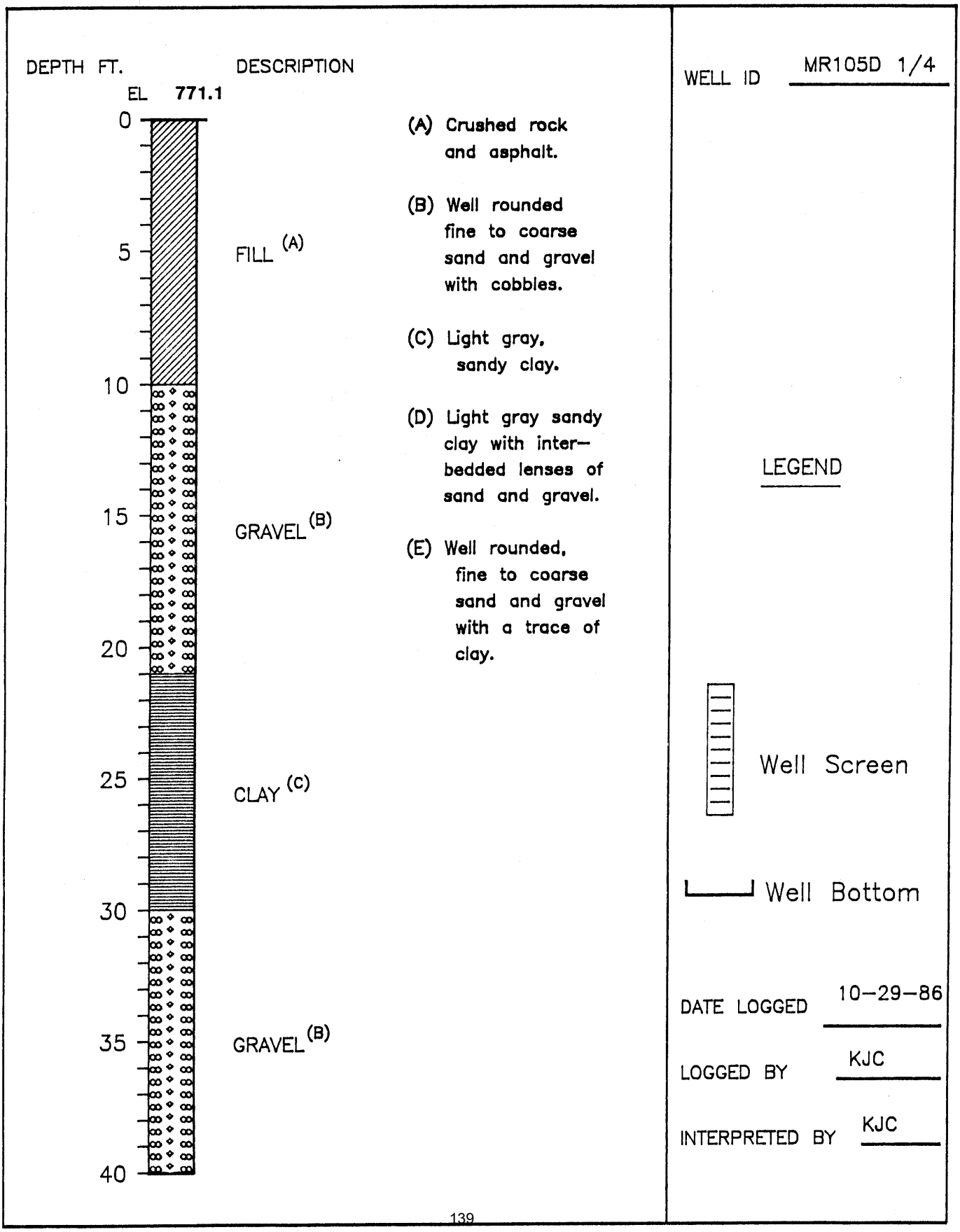
Geraghty & Miller, Inc.

WELL LOG



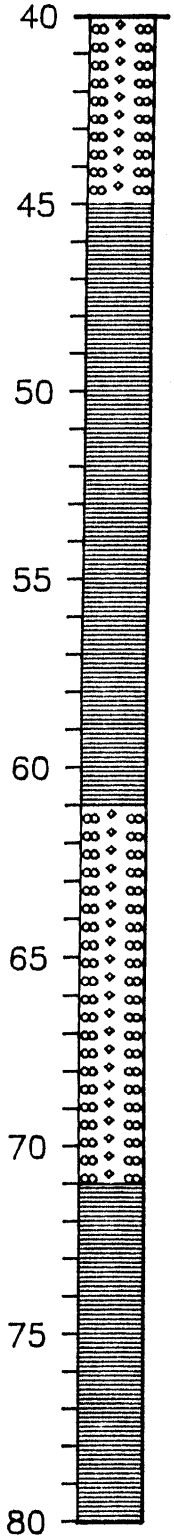
Geraghty & Miller, Inc.

WELL LOG



Geraghty & Miller, Inc.

WELL LOG



WELL ID MR105D 2/4

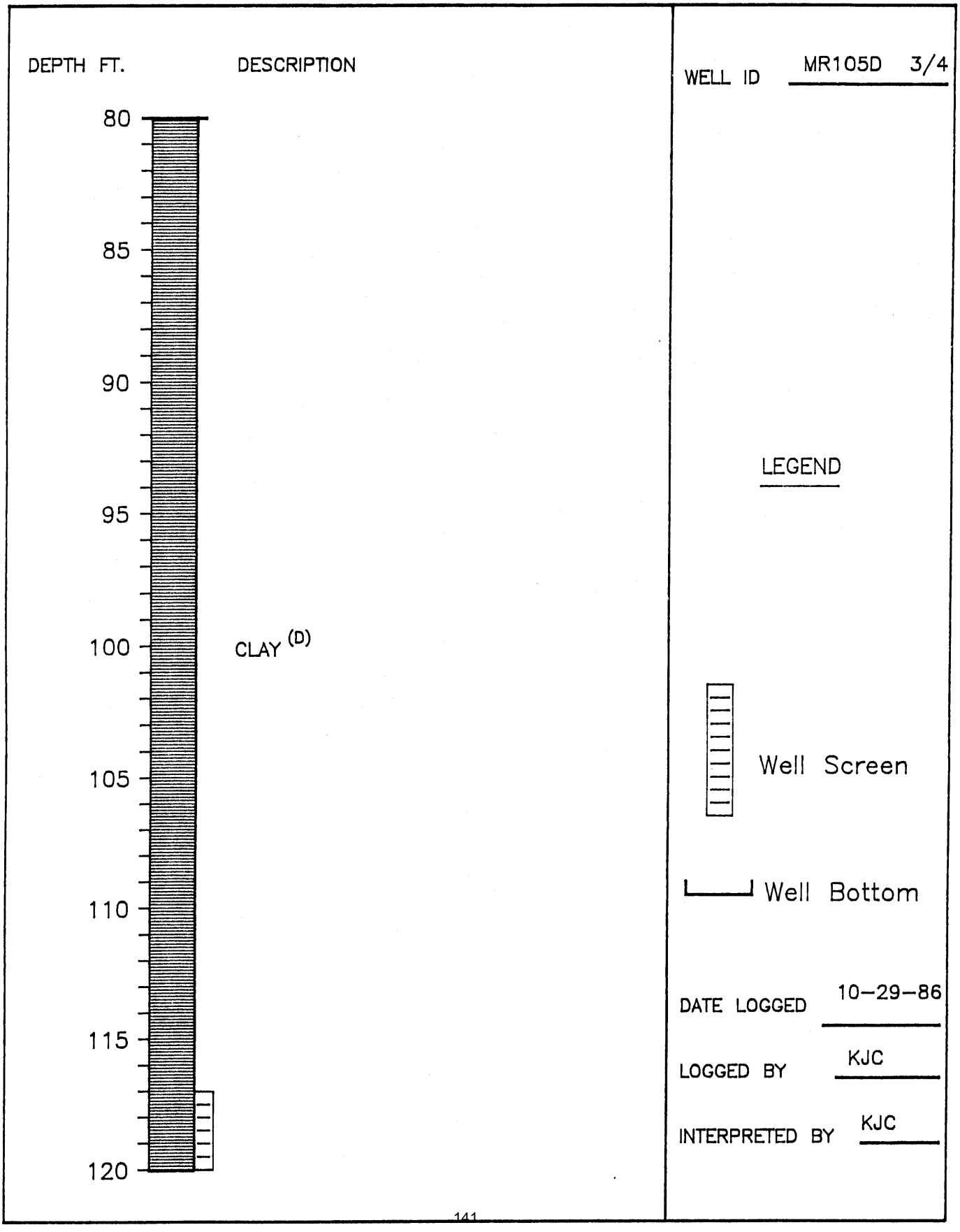
DATE LOGGED 10-29-86

LOGGED BY KJC

INTERPRETED BY KJC

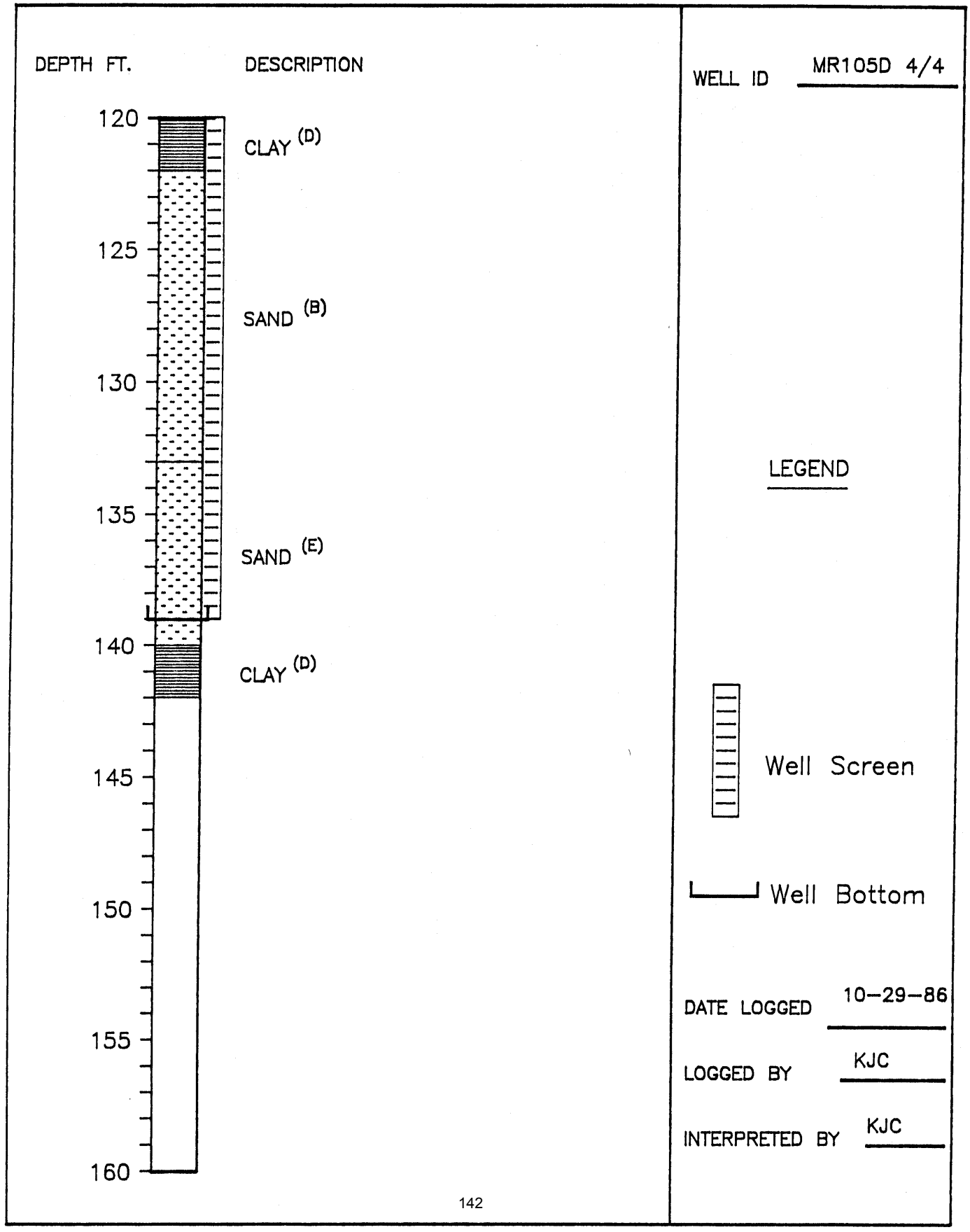
Geraghty & Miller, Inc.

WELL LOG



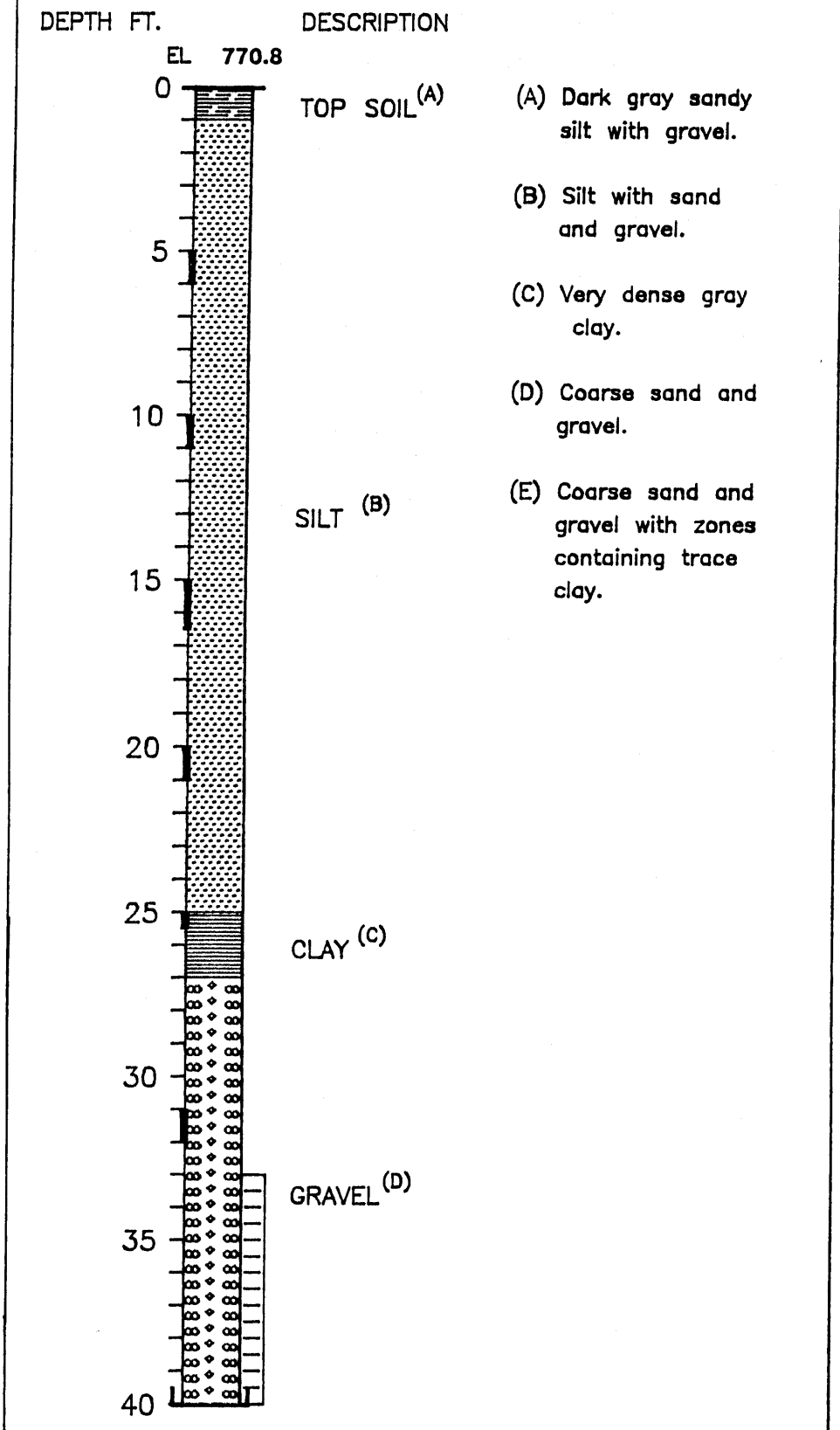
Geraghty & Miller, Inc.

WELL LOG



Geraghty & Miller, Inc.

WELL LOG



WELL ID MR104S 1/2

LEGEND

Core Sample

Well Screen

Well Bottom

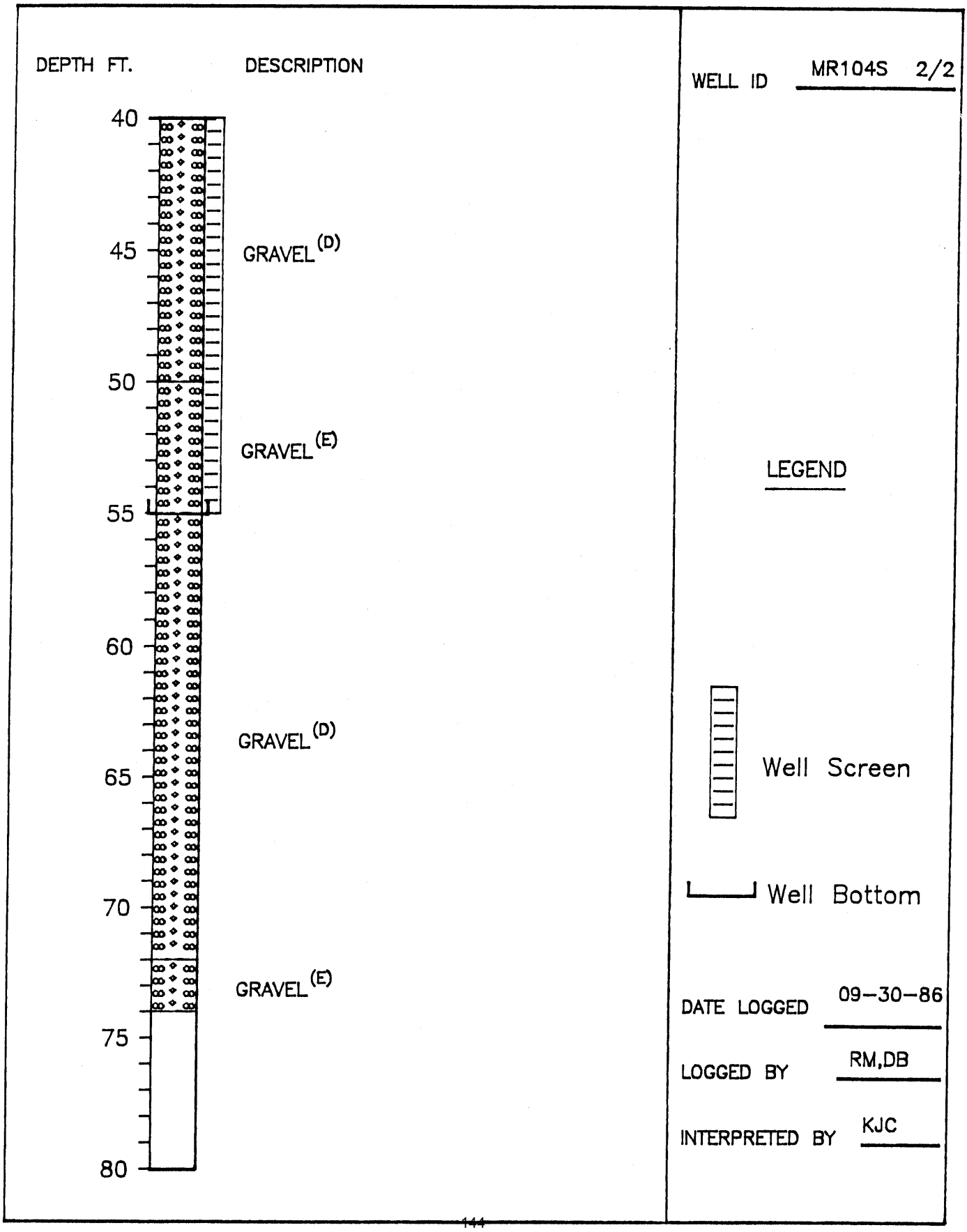
DATE LOGGED 09-30-86

LOGGED BY RM,DB

INTERPRETED BY KJC

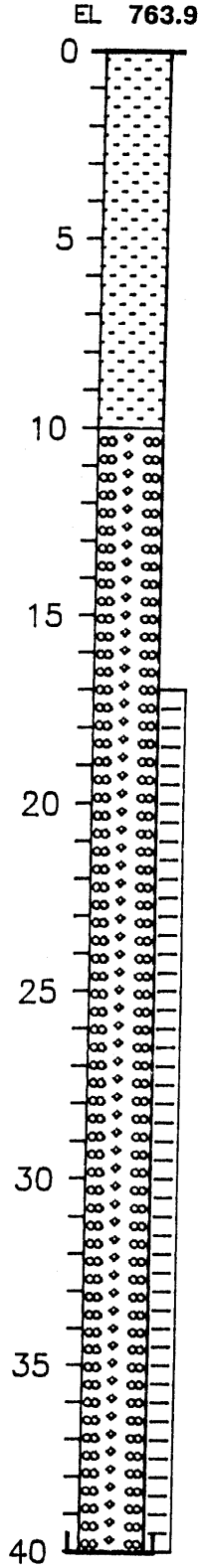
Geraghty & Miller, Inc.

WELL LOG



Geraghty & Miller, Inc.

WELL LOG



(A) Light brown fine to coarse sand.

(B) Fine to coarse gravel with sand.

(C) Gray clay.

WELL ID MR103S 1/2

LEGEND

Well Screen

Well Bottom

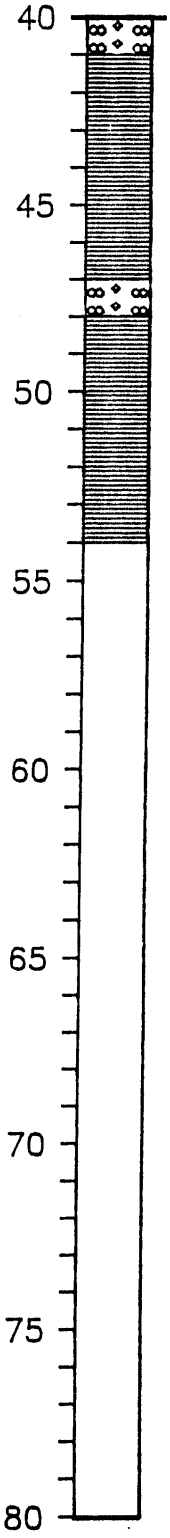
DATE LOGGED 10-03-86

LOGGED BY ER,RM

INTERPRETED BY KJC

Geraghty & Miller, Inc.

WELL LOG



DESCRIPTION

GRAVEL (B)

CLAY (C)

GRAVEL (B)

CLAY (C)

WELL ID MR103S 2/2

DATE LOGGED 10-03-86

LOGGED BY ER,RM

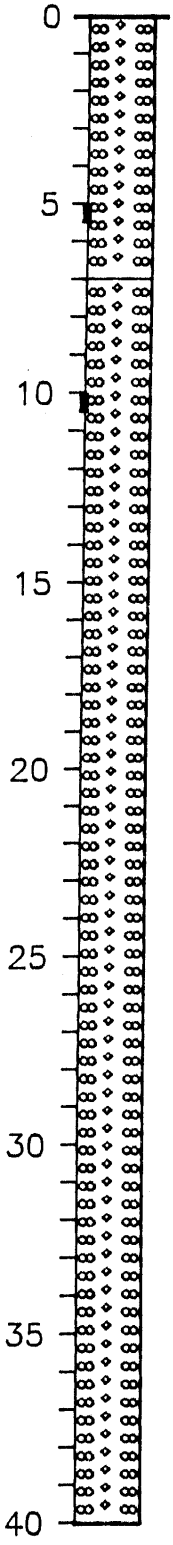
INTERPRETED BY KJC

Geraghty & Miller, Inc.

WELL LOG

DEPTH FT. DESCRIPTION

EL 763.8



GRAVEL (A)

GRAVEL (B)

(A) Gravel with intermixed clay.

(B) Coarse sand and fine gravel.

(C) Light gray clay with sand and gravel.

(D) Very coarse sand with gravel.

(E) Gray clay.

(F) Very coarse sand with interbedded clay.

WELL ID MR103D 1/5

Core Sample

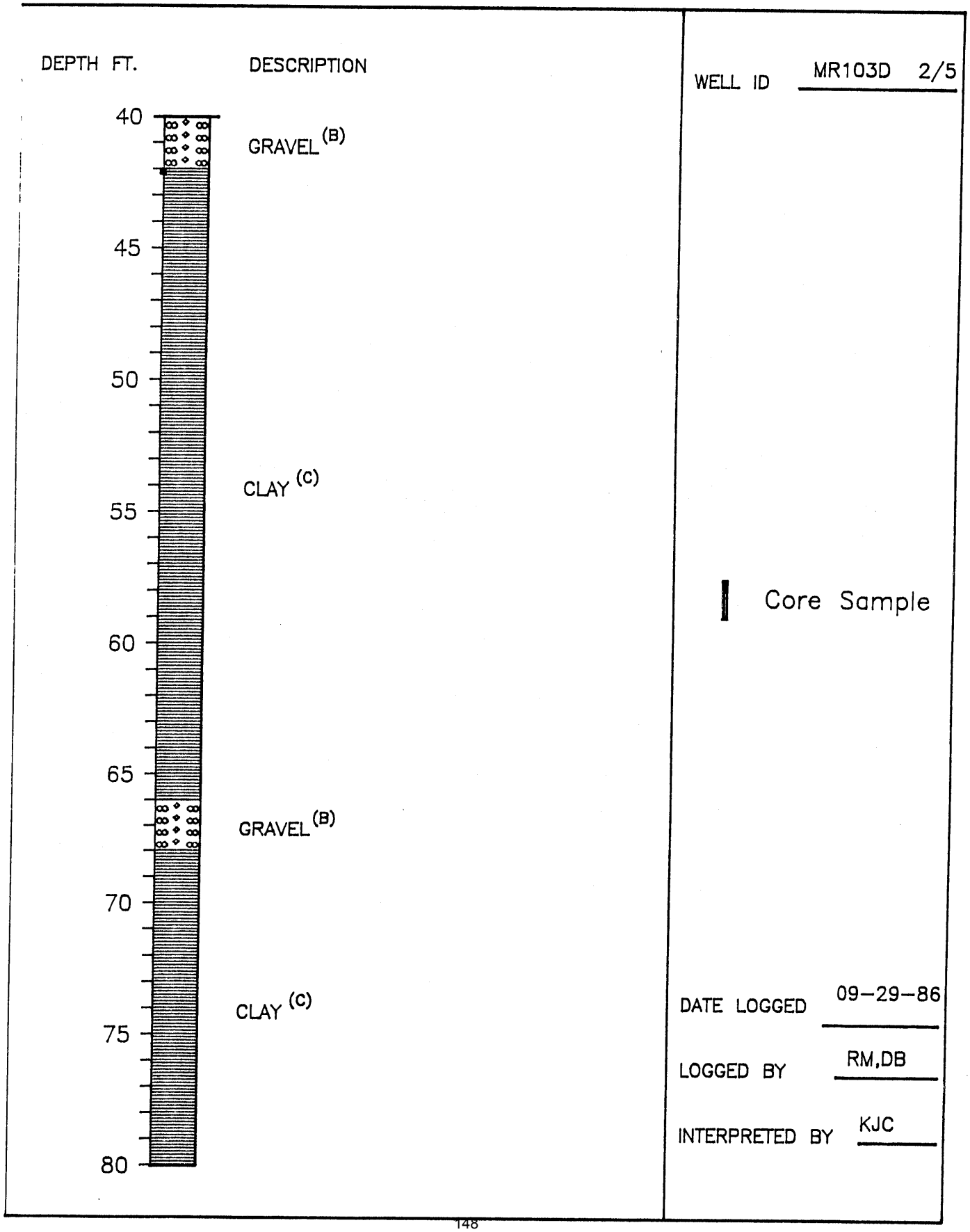
DATE LOGGED 09-29-86

LOGGED BY RM,DB

INTERPRETED BY KJC

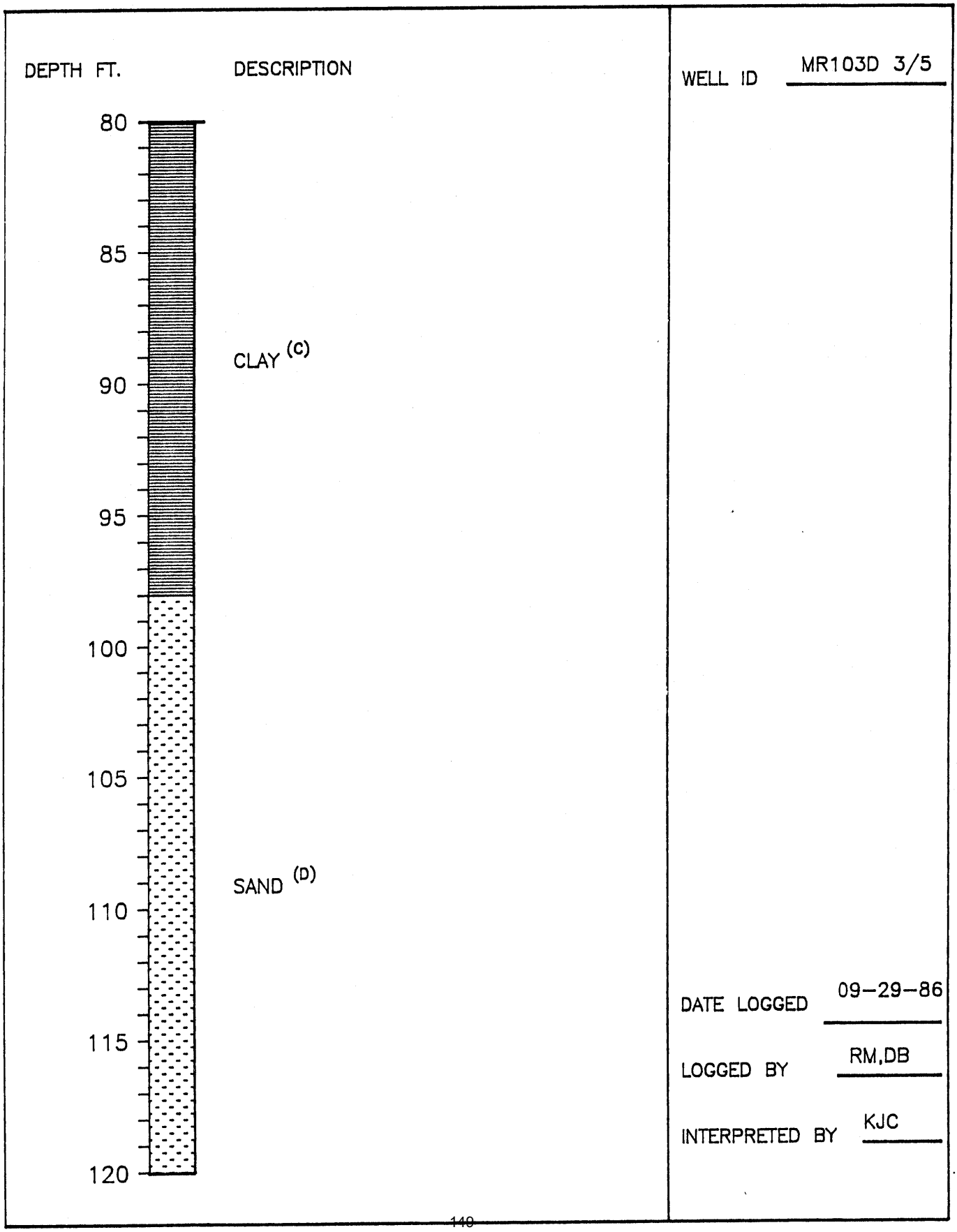
Geraghty & Miller, Inc.

WELL LOG



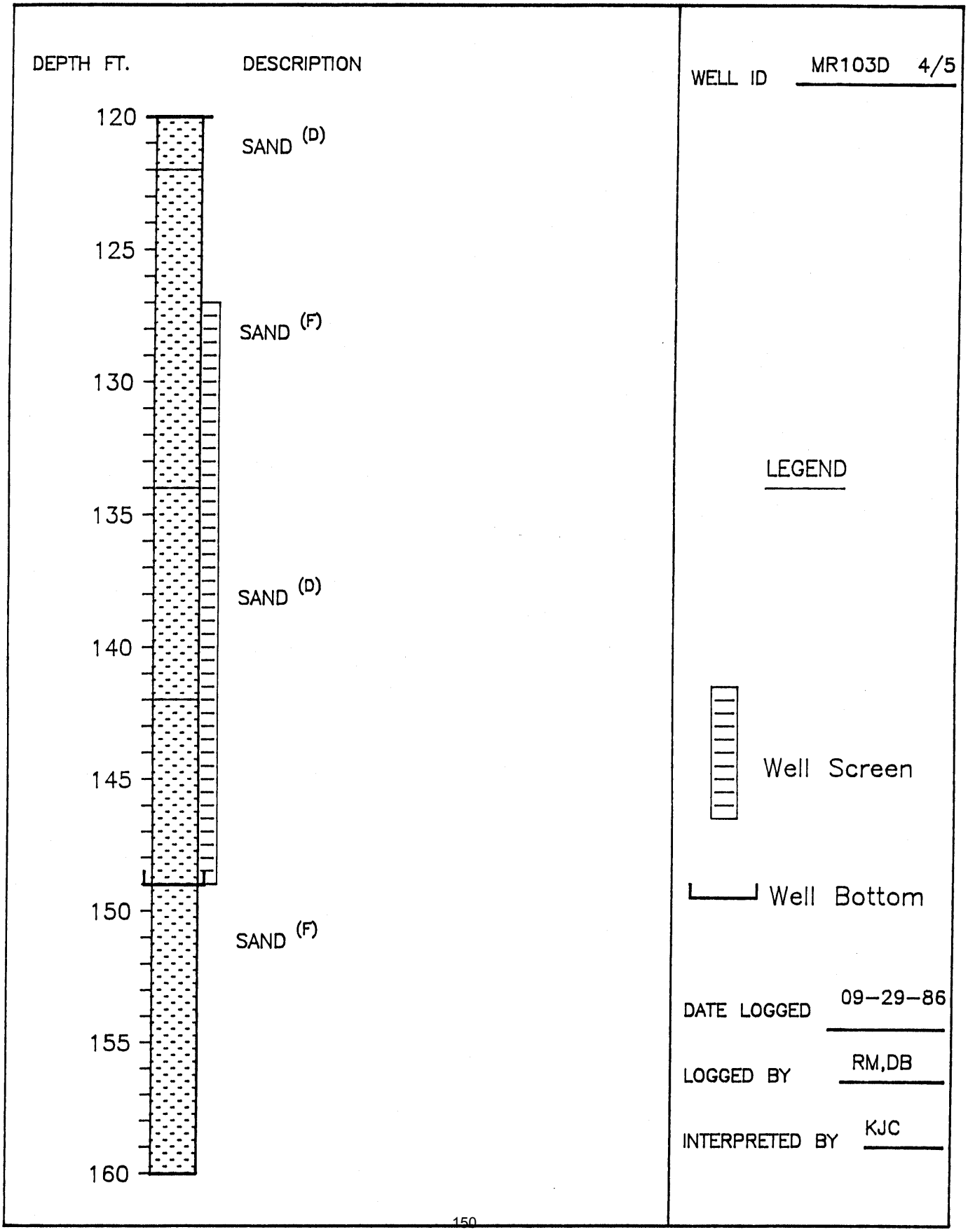
Geraghty & Miller, Inc.

WELL LOG



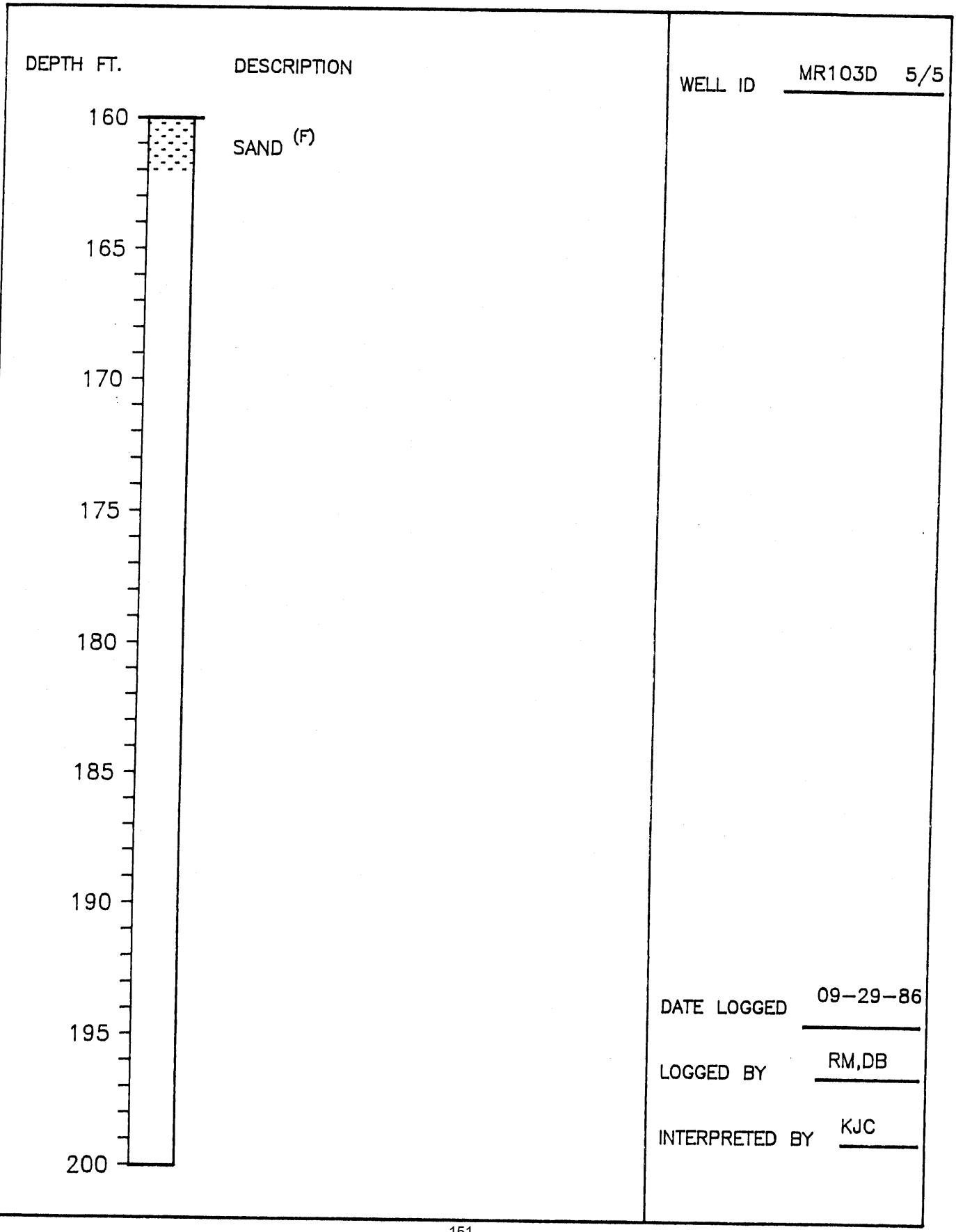
Geraghty & Miller, Inc.

WELL LOG



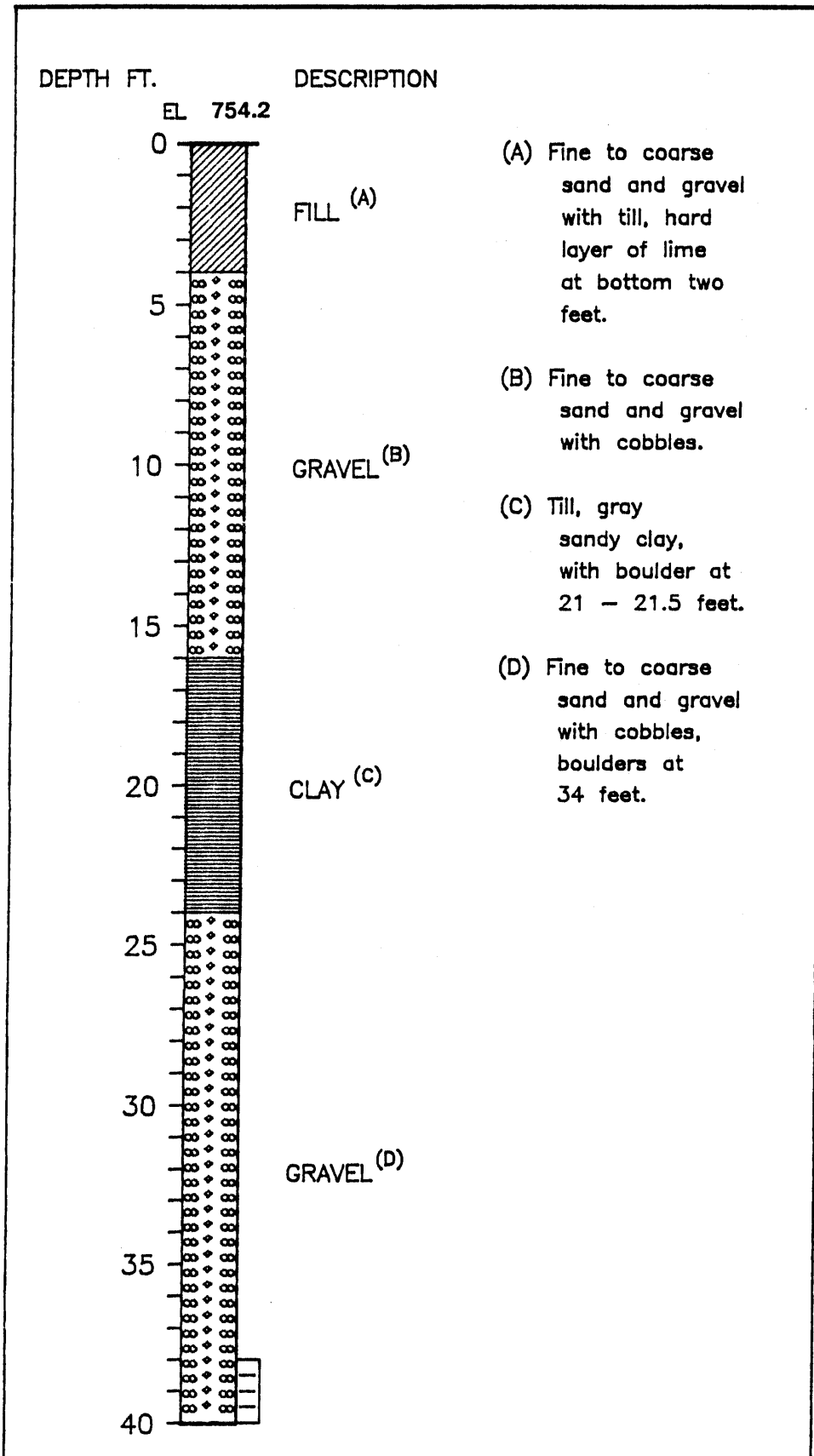
Geraghty & Miller, Inc.

WELL LOG



Geraghty & Miller, Inc.

WELL LOG



WELL ID MR102S 1/2

LEGEND

Well Screen

Well Bottom

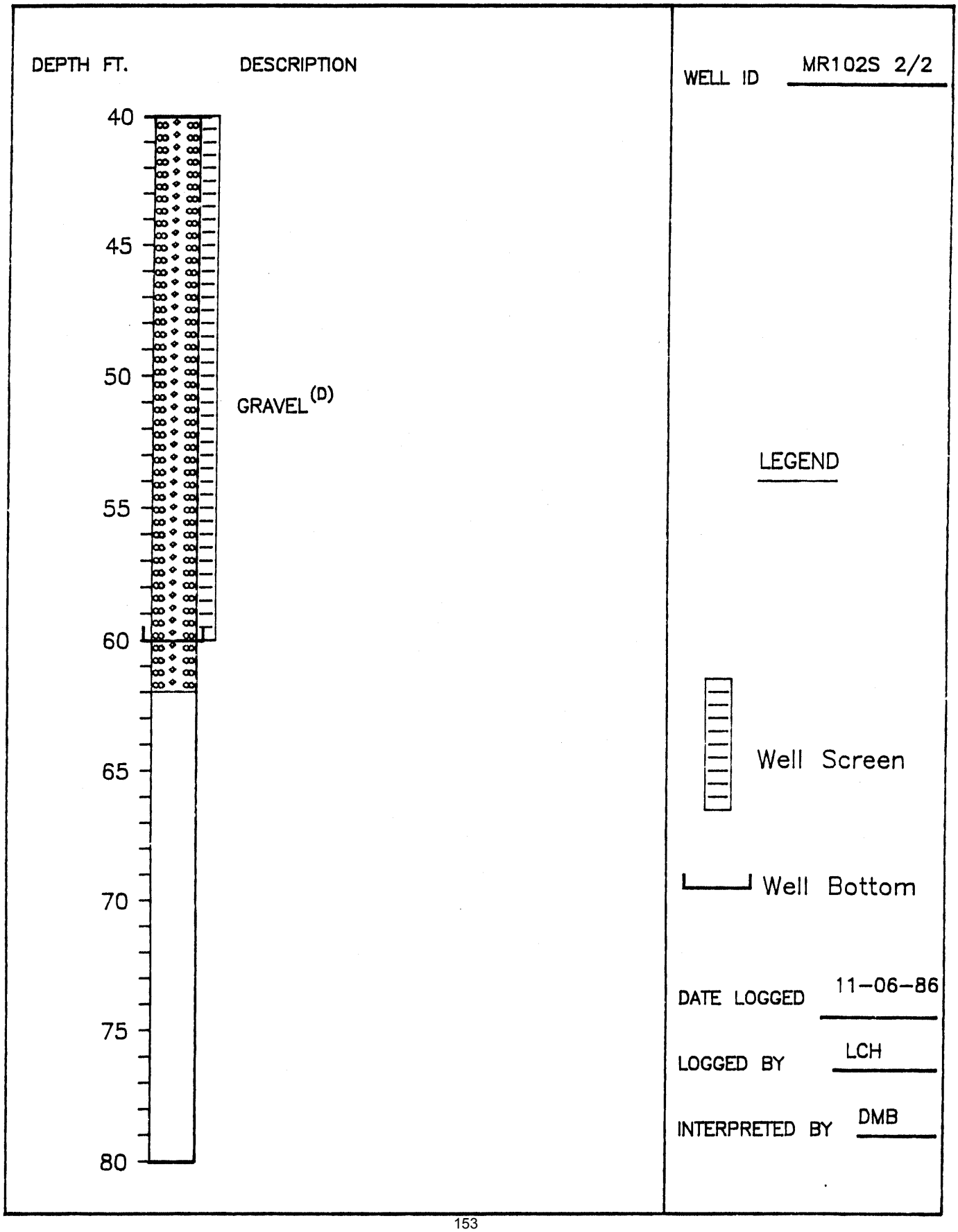
DATE LOGGED 11-06-86

LOGGED BY LCH

INTERPRETED BY DMB

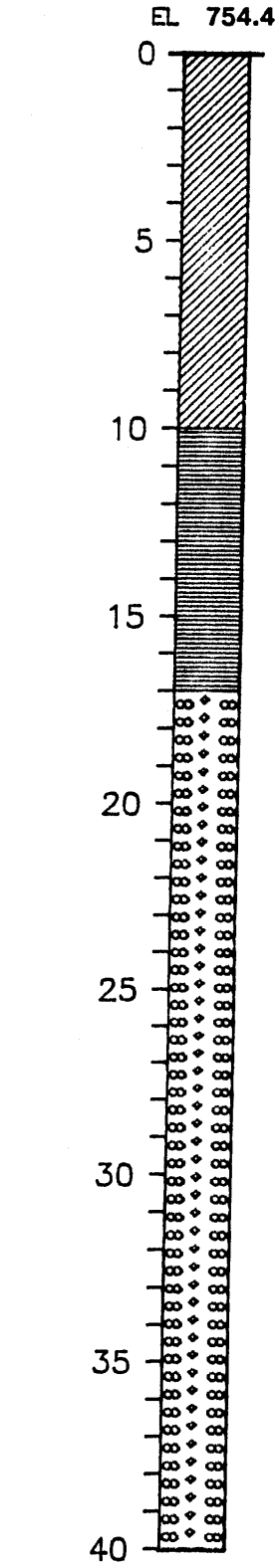
Geraghty & Miller, Inc.

WELL LOG



Geraghty & Miller, Inc.

WELL LOG



(A) Coarse sand, gravel and rubble.

(B) Gray sandy clay.

(C) Well rounded, fine to coarse sand, 17–42 ft.; Med. gravel and coarse sand, 42 – 56 ft.

(D) Silty sand with lenses of gravel.

(E) Med. to coarse sand and gravel.

(F) Med. to coarse sand and gravel with large boulders.

WELL ID MR102D 1/5

LEGEND

Well Screen

Well Bottom

DATE LOGGED 11–04–86

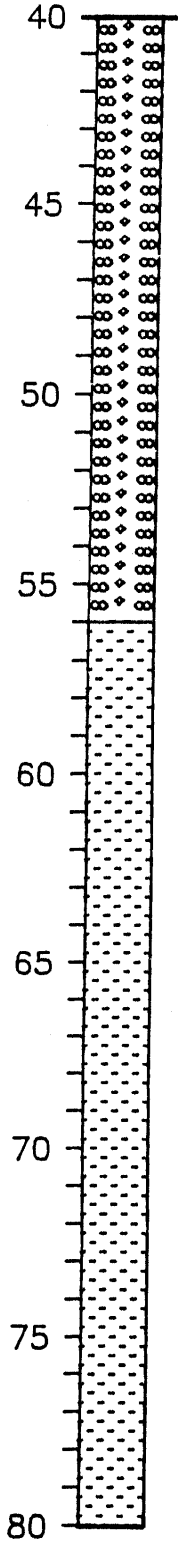
LOGGED BY LCH

INTERPRETED BY KJC

Geraghty & Miller, Inc.

WELL LOG

DEPTH FT. DESCRIPTION



(G) Large boulders and cobbles, occasional thin layers clay.

GRAVEL (C)

SAND (D)

WELL ID MR102D 2/5

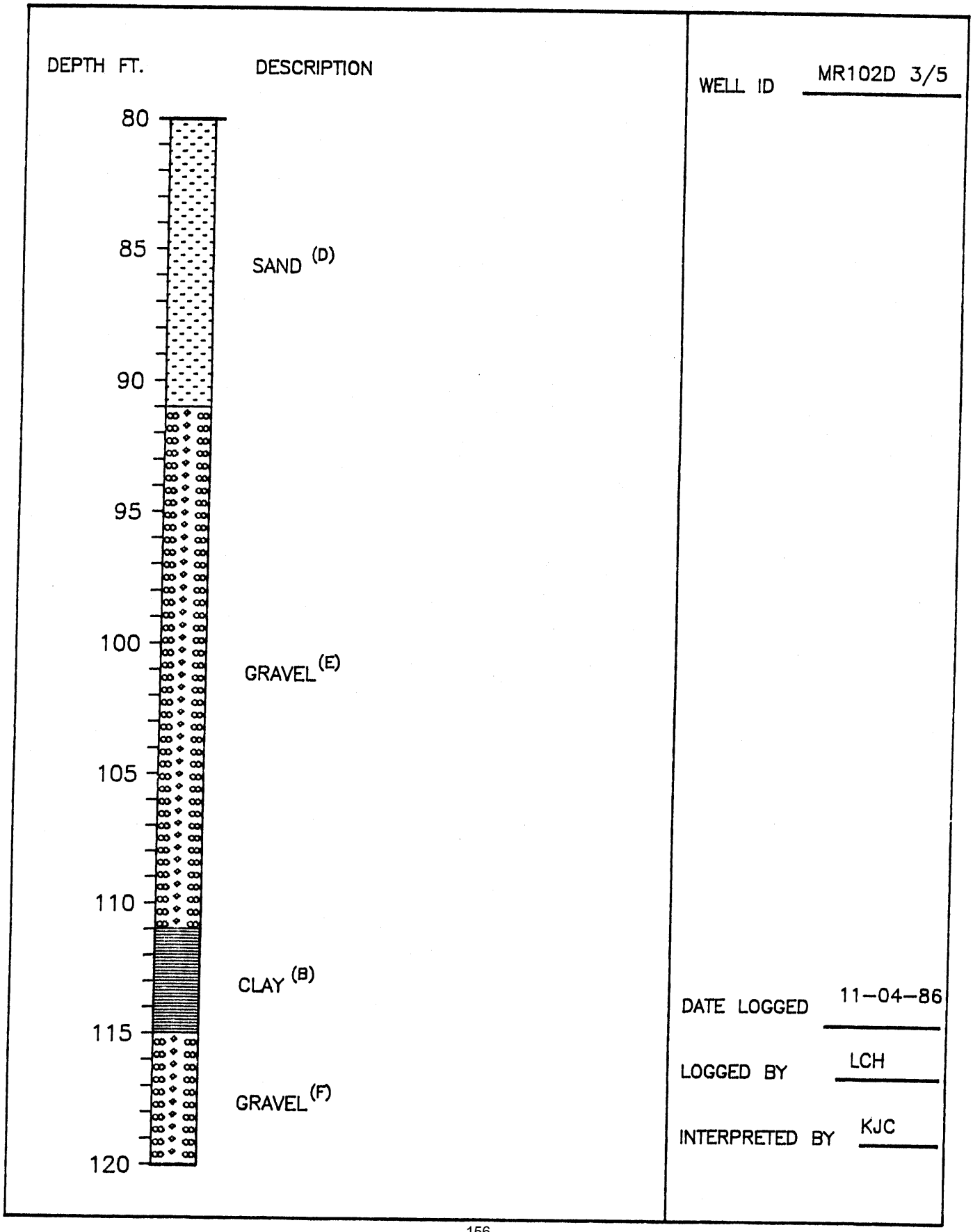
DATE LOGGED 11-04-86

LOGGED BY LCH

INTERPRETED BY KJC

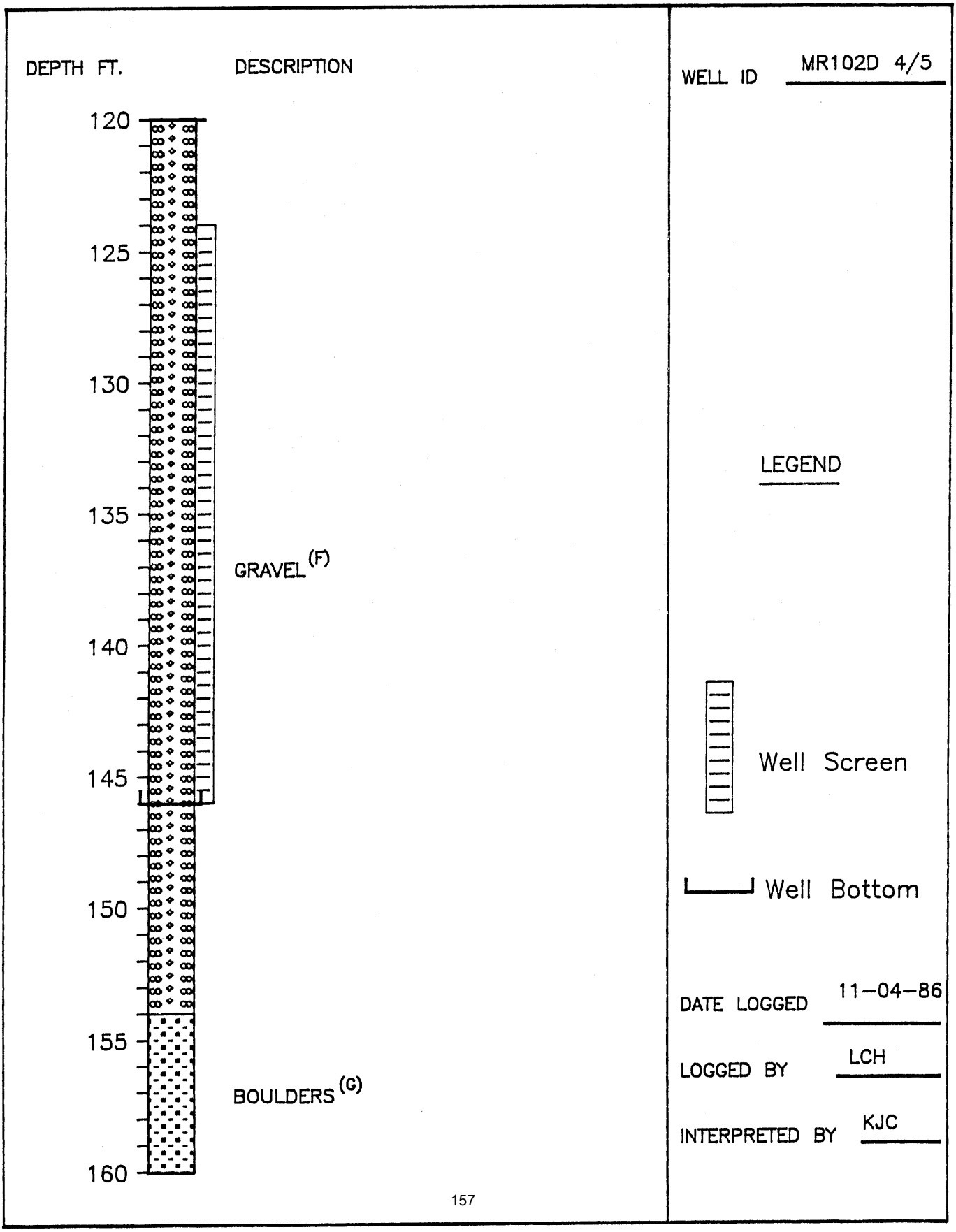
Geraghty & Miller, Inc.

WELL LOG



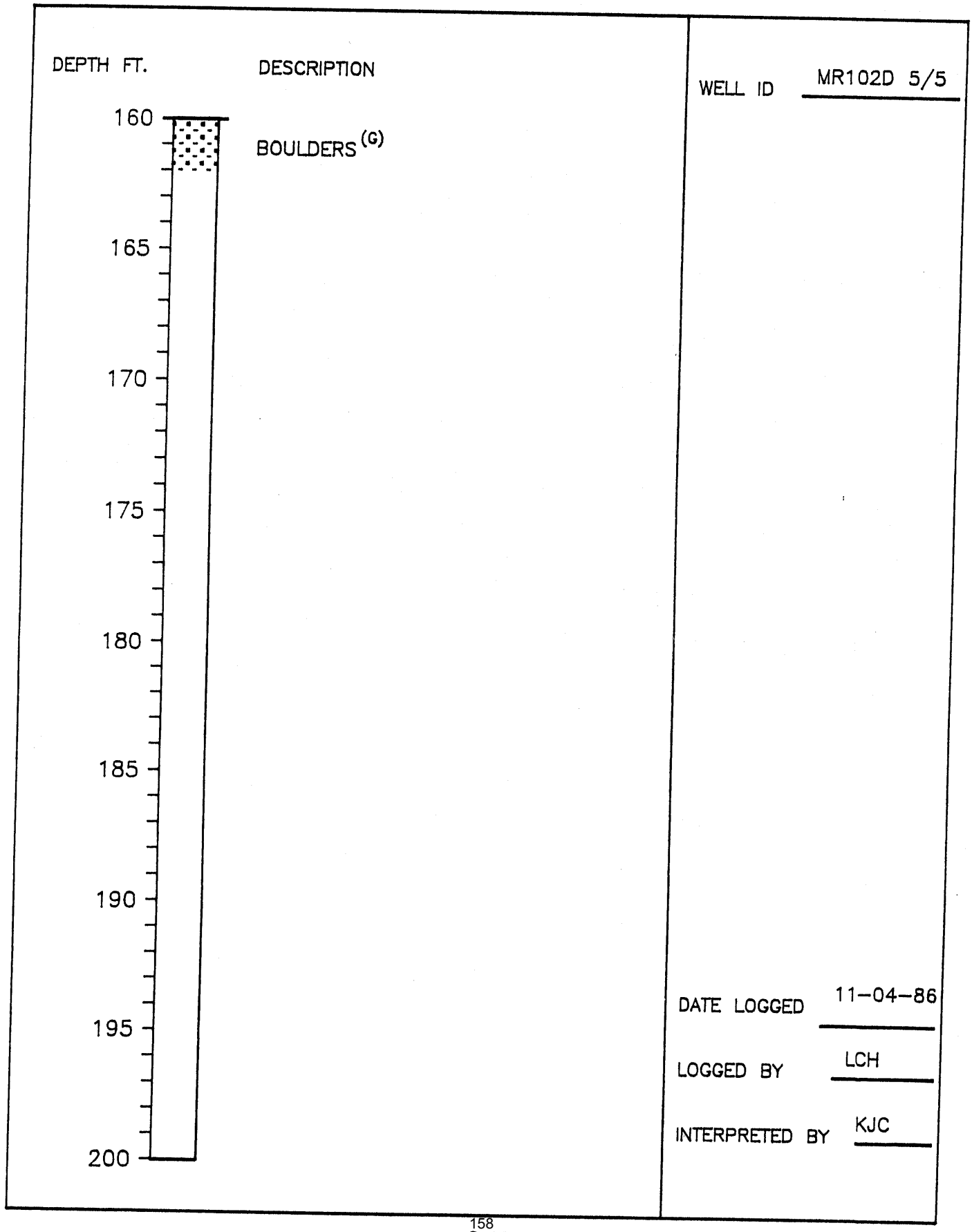
Geraghty & Miller, Inc.

WELL LOG



Geraghty & Miller, Inc.

WELL LOG

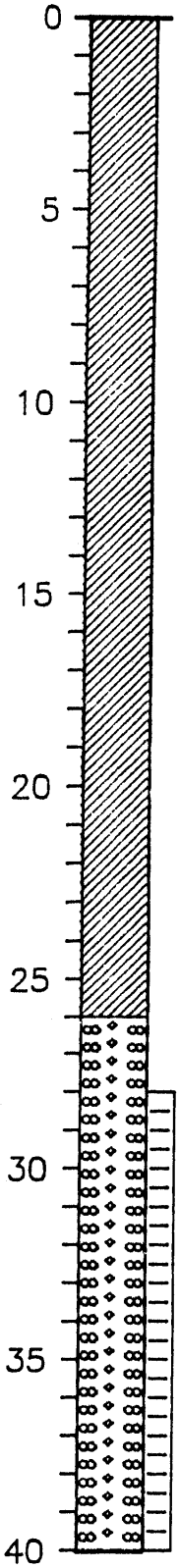


Geraghty & Miller, Inc.

WELL LOG

DEPTH FT. DESCRIPTION

EL 754.8



(A) Sand and gravel, dark gray to black, with metal, wire, garbage.

(B) Fine to coarse sand and gravel with boulders.

(C) Sandy gray clay.

WELL ID MR101S 1/2

LEGEND

Well Screen

Well Bottom

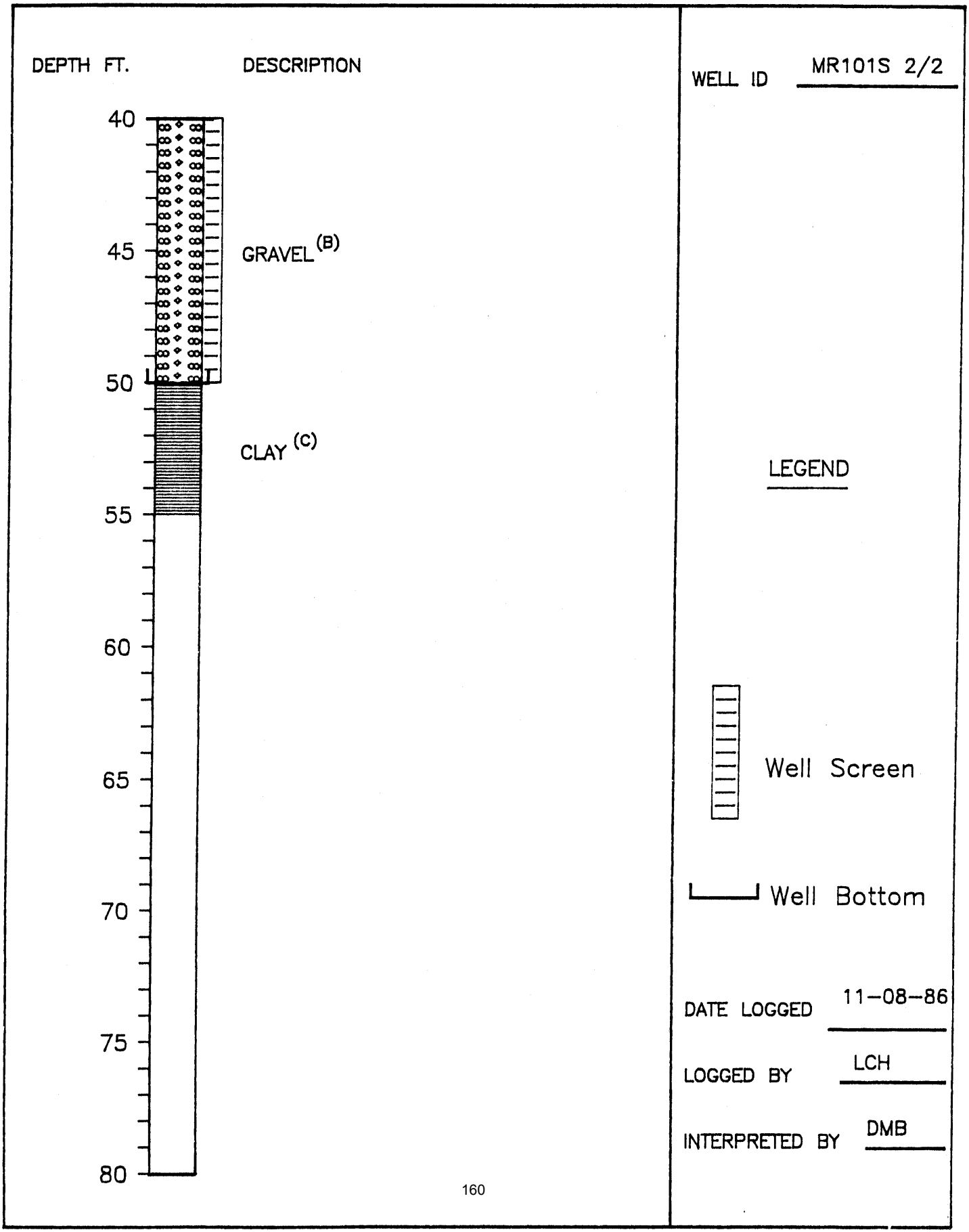
DATE LOGGED 11-8-86

LOGGED BY LCH

INTERPRETED BY DMB

Geraghty & Miller, Inc.

WELL LOG

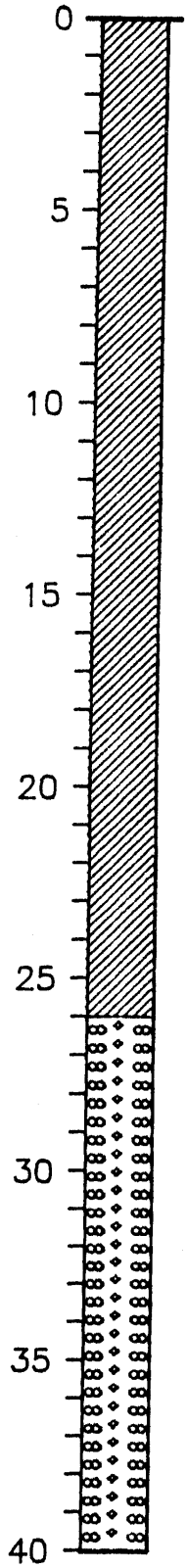


Geraghty & Miller, Inc.

WELL LOG

DEPTH FT. DESCRIPTION

EL 755.0



FILL (A)

GRAVEL (B)

(A) Dark gray to black sand and gravel, wire, nails, etc.

(B) Coarse sand and gravel with large boulders, layers of gray clay 52 – 57 ft.

(C) Sandy gray clay.

(D) Coarse sand and gravel.

(E) Med.-coarse sand and gravel.

(F) Very fine silty sand.

WELL ID MR101D 1/4

LEGEND

Well Screen

Well Bottom

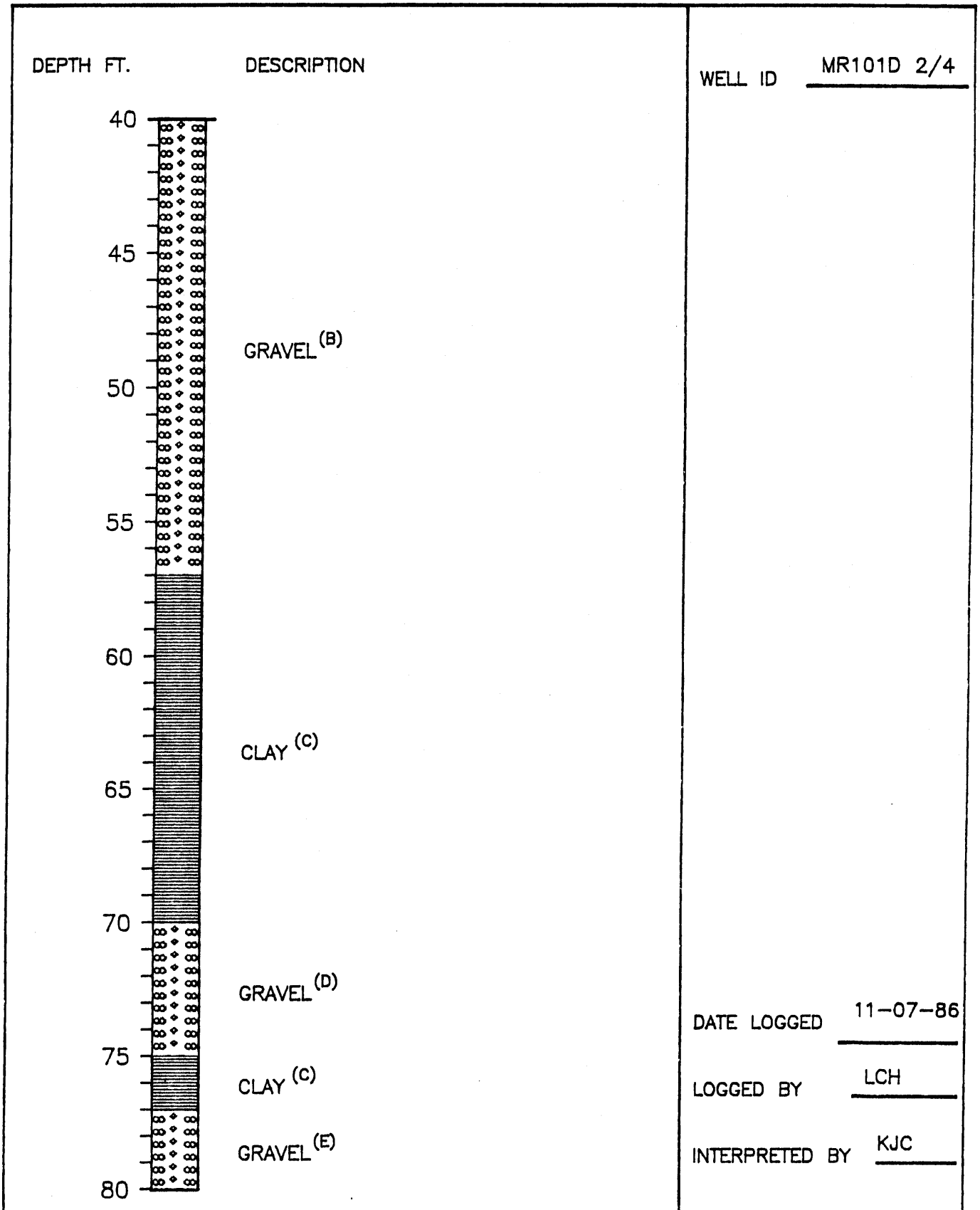
DATE LOGGED 11-07-86

LOGGED BY LCH

INTERPRETED BY KJC

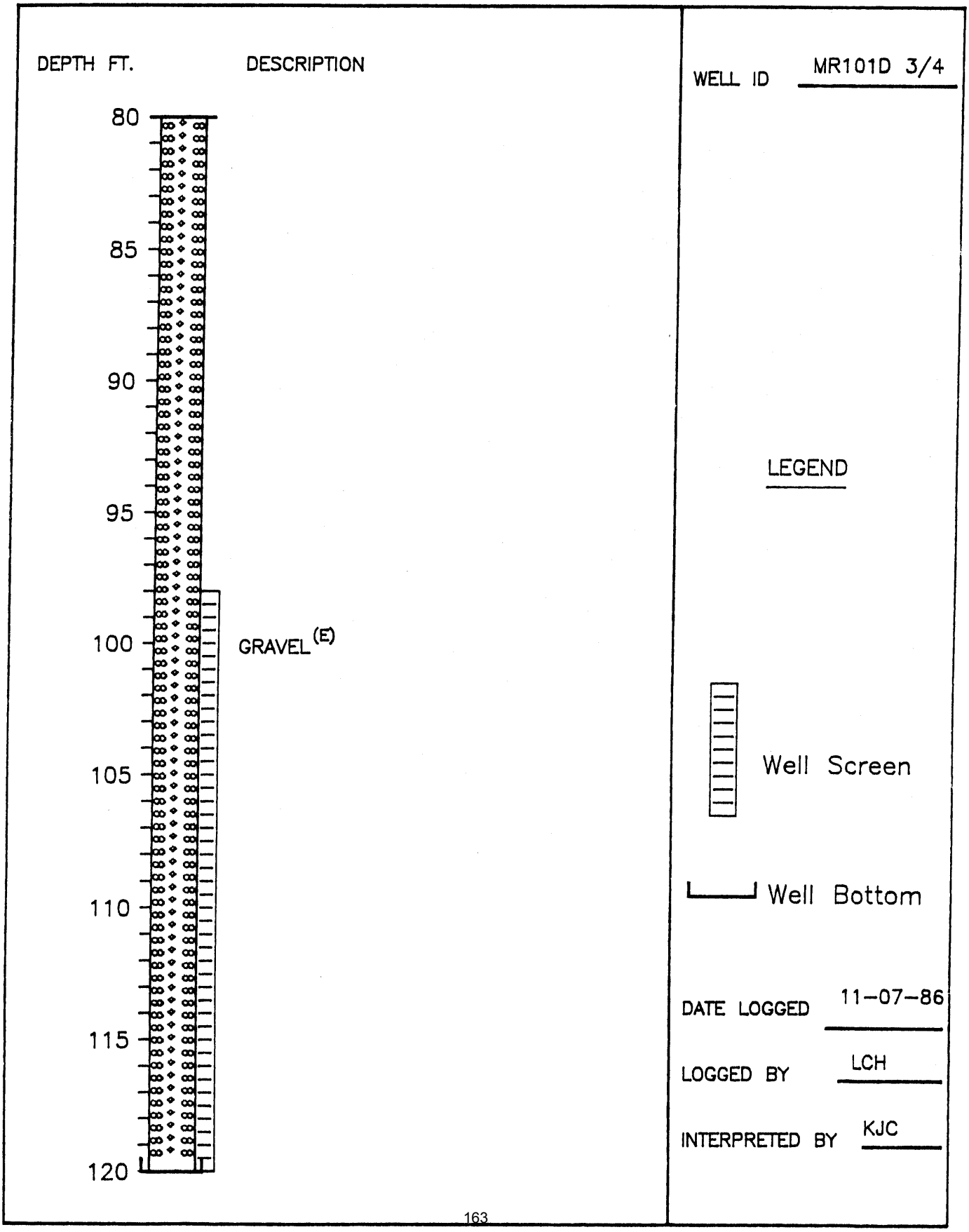
Geraghty & Miller, Inc.

WELL LOG



Geraghty & Miller, Inc.

WELL LOG

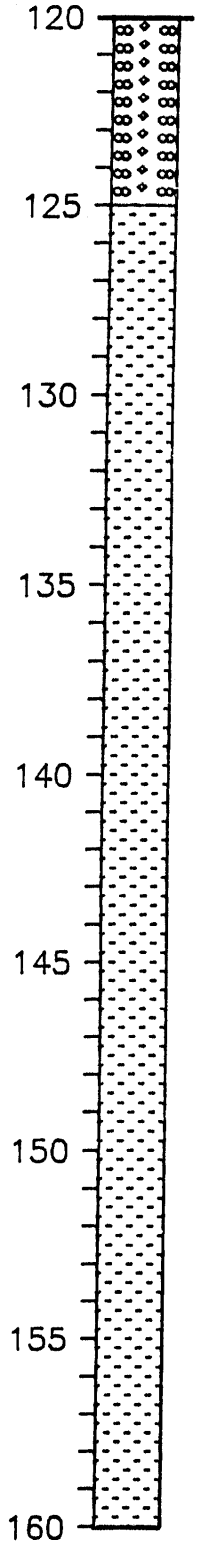


Geraghty & Miller, Inc.

WELL LOG

DEPTH FT.

DESCRIPTION



WELL ID MR101D 4/4

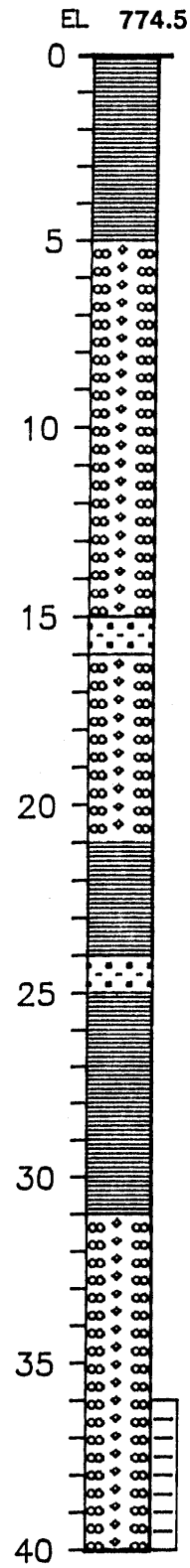
DATE LOGGED 11-07-86

LOGGED BY LCH

INTERPRETED BY KJC

Geraghty & Miller, Inc.

WELL LOG



DESCRIPTION

(A) Clay with sand and gravel.

(B) Coarse sand and gravel.

(C) Large cobbles and boulders.

(D) Gray sandy clay. with gravel.

(E) Coarse sand and gravel with boulders.

WELL ID MR106S 1/2

LEGEND

Well Screen

Well Bottom

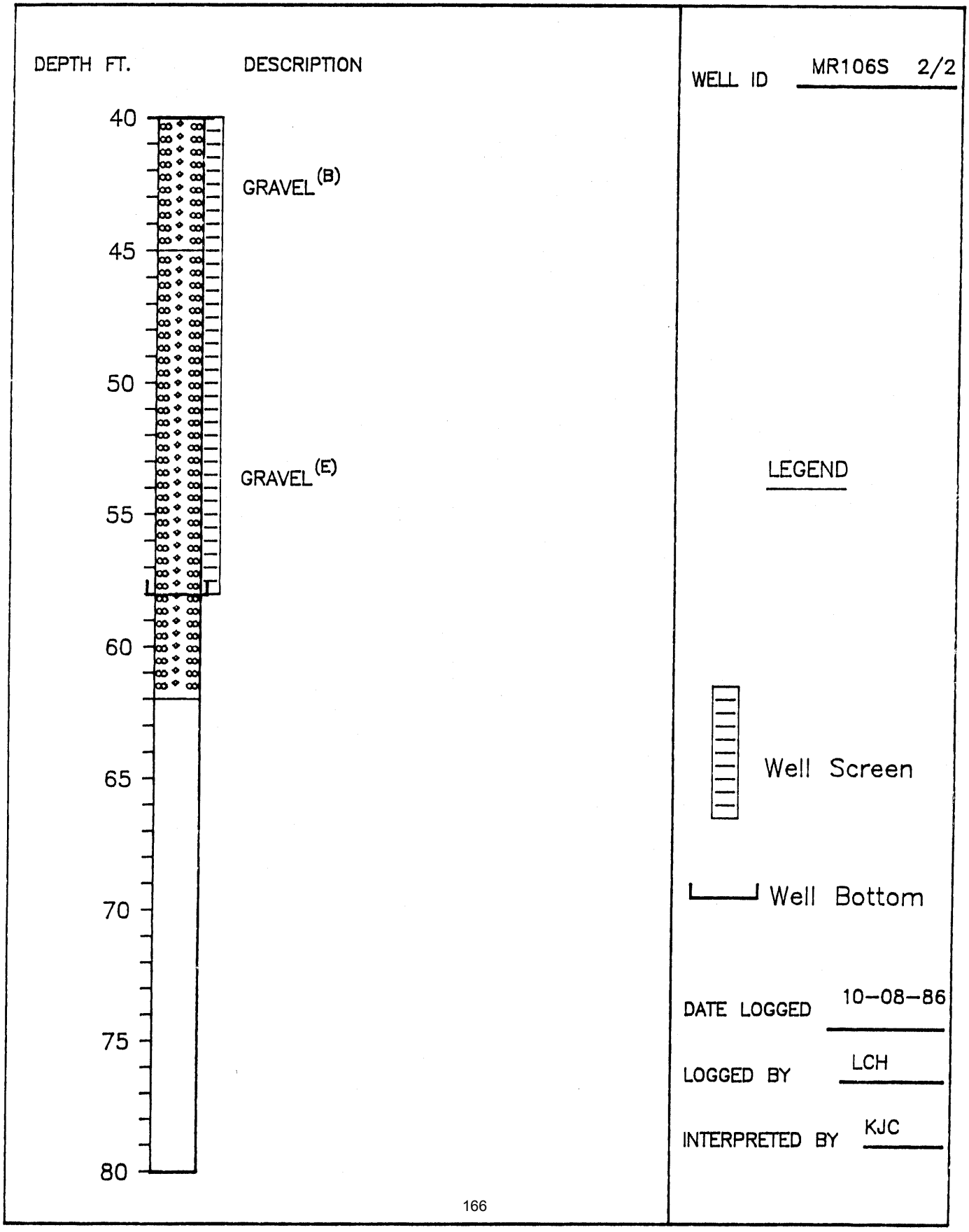
DATE LOGGED 10-08-86

LOGGED BY LCH

INTERPRETED BY KJC

Geraghty & Miller, Inc.

WELL LOG



Appendix F

Mad River Well Field Early Warning Monitoring Well Sampling Results

INFORMATION SYNOPSIS - MAD RIVER MONITORING WELLS
MW101S
SCREEN: 28-50 (CONFINED); BORING DEPTH: 55
LOW PERMEABILITY DEPOSITS: 0-26, 50-55+
DATUM: 756.53, GROUND EL: 755.10, EASTING: NA, NORTHING: NA
LOCATION: GATEWAY AREA, OFF ENTRANCE RAMP TO N BOUND RT 4
RECEPTORS: DWNGRAD OF ACTIVE PWs UNDER MOST SCENARIOS
FLOW DIRECTION: GENERALLY TO THE WSW
WATER LEVELS (12/87-11/04): AVG=20.08 (736.45), RANGE=16.50-22.70 (740.03 (5/93)-733.83 (10/88))

DATE	TCE	PCE	1,2 DCE	1,1 DCA	1,1,1 TCA	1,2 DCA	TOL
12/11/86	2.6	3.2					
3/17/87	3.7			0.8	14.5		
12/2/87	1.7		1.0	0.7			
2/1/88	1.6	1.1	0.4	0.4			
10/6/88	0.7						
5/2/89	0.3						
9/2/89	1.5		0.8				
3/22/90	1.0						
7/16/90	0.7					0.6	0.3
12/18/90	1.6						
3/13/91	4.6						
6/20/91							
9/20/91	2.1		1.1				
3/23/92	1.2		0.9				
6/18/92							
9/21/92	2.8		0.8	0.5			
12/15/92	1.8		1.4				
3/25/93	2.6		1.1				
6/8/93	2.3		0.6	0.7			
9/28/93							
12/27/93	1.9		1.3				
3/15/94	1.8		1.9			1.5	
9/26/94	1.7		1.5				
12/19/94		0.6	1.1				
6/13/95	1.5		0.6				
9/21/95	2.3		1.1				
12/13/95	1.4		1.2				
2/22/96	2.5		0.8				
9/10/97	3.0	0.6	0.8	0.2			
3/4/98	2.4	0.5	1.5				
9/17/98	3.0	0.7	0.7				
9/23/99	2.5	0.6	0.8				
3/23/00	2.3	0.5	0.9				
3/6/01	2.2	0.5	0.6				
12/20/01	2.0	0.4	1.0			0.5	
5/22/02	1.8	0.5	1.0				
9/17/02	2.4	0.7	0.6				
6/3/03	2.1	0.6	1.2			0.3	
3/17/04	1.6	0.5	0.8				
11/18/04	1.0						
5/24/05	1.4	0.4	0.4				
8/24/05	2.1	0.7	0.3				
2/8/06	2.3	0.8	0.3				
8/21/06	2.1	0.8					
1/18/07	2.0	0.7					
7/17/07	1.8	0.7					
6/30/08	1.4	0.6					
9/10/08	1.3	0.7					
10/22/08	1.6	0.8					

MW101D
SCREEN: 98-120 (CONFINED)
LOW PERMEABILITY DEPOSITS: 0-26, 57-70, 75-77
DATUM: 757.15, GROUND EL: 755.10, EASTING: NA, NORTHING: NA
LOCATION: GATEWAY AREA, OFF ENTRANCE RAMP TO N BOUND RT 4
RECEPTORS: DWNGRAD OF ACTIVE PWs UNDER MOST SCENARIOS
FLOW DIRECTION: GENERALLY TO THE WSW
WATER LEVELS (12/87-1/99): AVG=20.85 (736.31), RANGE=17.10-23.25 (740.06 (5/93)-733.91 (1/92))

DATE	PCE	NAPH	BTEX
12/11/86			
3/17/87			
12/16/87			
2/17/88	0.5		
5/3/89			
9/21/89			
7/16/90			0.3
12/18/90			0.7
3/13/91			
6/20/91			
9/18/91			
3/23/92			
6/19/92			
9/21/92			
12/15/92			
3/25/93			
6/28/93			
12/27/93			
3/15/94		0.7	
9/24/94			
12/19/94	0.4		
6/13/95			
9/21/95			
12/13/95			
2/23/96			
9/10/97			
3/4/98			
9/17/98			
9/23/99			
3/6/01			
12/20/01			
5/22/02			
6/3/03			
3/22/04			
4/22/04			
9/20/04			
5/24/05			
8/24/05			
2/8/06			
8/21/06			
1/18/07			
7/17/07			
6/30/08			
9/10/08			
10/22/08			

MW102S
SCREEN: 38-60 (SEMI-CONFINED); BORING DEPTH: 62
LOW PERMEABILITY DEPOSITS: 16-24
DATUM: 756.27, GROUND EL: 754.90, EASTING: NA, NORTHING: NA
LOCATION: GATEWAY AREA OFF N BOUND RT 4
RECEPTORS: DWNGRAD OF ACTIVE PWs UNDER MOST SCENARIOS
FLOW DIRECTION: GENERALLY TO THE WSW
WATER LEVELS (12/87-1/05): AVG=18.27 (738.00), RANGE=13.60-23.20 (742.67 (5/96)-733.07 (10/88))

DATE	TCE	PCE	1,2 DCE	1,1 DCA	TCFM	TOL	CF
11/22/86	2.4						
3/17/87	7.9						
12/29/87	2.9				1.3		
2/18/88	4.6	1.0					
5/8/88	4.0						
9/20/89	4.3						
3/22/90	5.3						
7/18/90	3.6					0.3	
12/17/90	2.4						
3/13/91	1.6		0.7				
6/20/91	1.9		0.5				
9/18/91							
3/19/92	1.9						
6/18/92	3.2						
9/21/92	5.4						
12/15/92	4.9						
3/25/93	4.7						
6/28/93	2.3		0.6	0.6			
9/20/93	2.5						
11/22/93	1.2						
3/15/94	1.3						
9/26/94	2.4						
12/19/94	1.1	0.8		0.5			
6/13/95	2.1						
9/21/95	3.6						
12/13/95	2.8						
2/21/96	3.8						
9/10/97	3.1						
3/4/98	2.7						
9/21/98	2.6						
9/22/99	0.8						
3/6/01	0.7						
4/17/01	2.1	2.7					
12/20/01	1.7						
5/21/03	1.7						
3/17/04	2.1						
4/22/04	1.4						
9/20/04	1.0						
11/18/04	1.0						
5/24/05	1.0						
8/24/05	1.0						
2/8/06	1.7						
5/23/06	1.8						
8/21/06	1.0						
1/18/07	0.9						
7/17/07	0.6						
6/30/08	0.5						
9/10/08							
10/22/08							

MW102D
SCREEN: 124-146 (SEMI-CONFINED); BORING DEPTH: 162
LOW PERMEABILITY DEPOSITS: 0-17, 111-115
DATUM: 756.75, GROUND EL: 754.55, EASTING: NA, NORTHING: NA
LOCATION: GATEWAY AREA OFF N BOUND RT 4
RECEPTORS: DWNGRAD OF ACTIVE PWs UNDER MOST SCENARIOS
FLOW DIRECTION: GENERALLY TO THE WSW
WATER LEVELS (12/87-1/05): AVG=19.65 (737.01), RANGE=15.70-23.25 (741.05 (5/93)-733.50 (10/88))

DATE	PCE	TCE
12/11/86		
3/17/87		
2/18/88	2.6	
5/18/89		
9/20/89		
3/22/90		
7/18/90		
12/17/90		
3/13/91		
6/20/91		
9/18/91		
3/19/92		
6/18/92		3.0
9/21/92		
12/15/92		
3/25/93		
6/28/93		
9/20/93		
11/22/93		
9/26/94		
12/19/94	0.4	
6/13/95		
9/21/95		
12/13/95		
2/21/96		
3/12/97		
9/10/97		
3/4/98		
3/6/01		
12/20/01		
5/21/03		
3/17/04		
4/22/04		
9/20/04		
11/18/04		
5/24/05		
8/24/05		
2/8/06		
5/23/06		
8/21/06		
1/18/07		
7/17/07		
6/30/08		
9/10/08		
10/22/08		

MW103S
SCREEN: 17-40 (UNCONFINED); BORING DEPTH: 54
LOW PERMEABILITY DEPOSITS: 41-54+
DATUM: 765.64, GROUND EL: 764.10, EASTING: 1506631.171, NORTHING: 654726.302
LOCATION: GATEWAY AREA, OFF N BOUND RT 4
RECEPTORS: TATES HILL PWs AND PWs 7-10 UNDER DROUGHT CNDTNS
FLOW DIRECTION: GENERALLY TO THE WSW
WATER LEVELS (12/87-1/05): AVG=13.33 (752.31), RANGE=13.33-16.50 (755.27 (9/02)-749.14 (11/96))

DATE	PCE
11/22/86	
3/19/87	
12/10/87	
2/18/88	1.9
5/4/89	
9/25/89	
2/22/90	
9/13/90	
12/6/90	
2/26/90	
6/13/91	
9/12/91	
12/10/91	
3/17/92	
6/11/92	
9/2/92	
12/8/92	
3/15/93	
8/30/93	
12/9/93	
3/9/94	
9/22/94	
12/12/94	2.6
3/1/95	1.0
5/24/95	0.3
9/14/95	
12/4/95	
2/12/96	
9/17/96	
11/14/96	
2/18/97	
8/28/97	
2/23/98	
9/3/98	
2/1/99	
7/27/99	
8/7/00	
10/11/01	
7/15/02	0.5
5/21/03	
7/9/03	
4/13/04	
8/4/04	
11/23/04	
2/17/05	
4/7/05	
7/19/05	
10/25/05	
1/24/06	

MW103S Continued

DATE	PCE
5/11/06	
7/25/06	
11/13/06	
1/30/07	
7/17/07	
10/2/07	
3/12/08	
5/15/08	
8/4/08	
3/11/10	

MW103D

SCREEN: 127-149 (CONFINED); BORING DEPTH: 162
LOW PERMEABILITY DEPOSITS: 42-98
DATUM: 765.58, GROUND EL: 764.20, EASTING: 1506670.009, NORTHING: 654745.425
LOCATION: GATEWAY AREA, OFF N BOUND RT 4
RECEPTORS: TATES HILL PWs AND PWs 7-10 UNDER DROUGHT CNDTNS
FLOW DIRECTION: GENERALLY TO THE WSW
WATER LEVELS (12/87-1/05): AVG=17.65 (747.93), RANGE=11.41-23.60 (754.14 (1/05)-741.98 (2/00))

DATE	PCE	1,1,1 TCA	DCFM
11/22/86			
12/10/87			
2/18/88	2.8		
8/24/89		0.4	
6/28/90			
12/6/90			
2/25/91			
6/13/91			
9/12/91			
12/10/91			
3/12/92			
6/11/92			
9/2/92			
12/8/92			
3/15/93			
6/17/93			
8/30/93			
9/8/93			
9/22/94			
12/12/94	1.7		5.8
3/1/95			
5/24/95	0.3		
9/14/95			
12/4/95			
2/12/96			
9/17/96			
11/14/96			
2/18/97			
8/28/97			
2/23/98			
9/3/98			
2/1/99			
8/7/00			
10/11/01			
7/15/02	0.5		
5/21/03			

MW103D Continued

DATE	PCE	1,1,1 TCA	DCFM
7/9/03			
4/13/04			
8/4/04			
11/23/04			
2/17/05			
4/7/05			
7/19/05			
10/25/05			
1/24/06			
5/11/06			
7/25/06			
11/13/06			
1/30/07			
7/17/07			
10/2/07			
3/12/08			
5/15/08			
8/4/08			
3/11/10			

MW104S

SCREEN: 33-55 (CONFINED); BORING DEPTH: 74
LOW PERMEABILITY DEPOSITS: 0-27
DATUM: 772.58, GROUND EL: 771.10, EASTING: 1508157.179, NORTHING: 655698.321
LOCATION: OFF N BOUND RT 4, ADJACENT TO HYDROBOWL LAKE
RECEPTORS: TATES HILL PWs AND PWs 7-10 UNDER DROUGHT CNDTNS
FLOW DIRECTION: GENERALLY TO THE WSW
WATER LEVELS (12/87-1/05): AVG=20.81 (751.77), RANGE=16.40-25.90 (756.18 (4/96)-746.68 (2/00))

DATE	PCE	TCE	1,2 DCE
11/22/86			
3/19/87			
12/10/87			
5/6/88			
5/4/89			
8/10/89			
8/9/90			
12/5/90			
2/25/91			
6/13/91			
9/12/91			
12/9/91			
3/17/92			
6/11/92			
9/1/92			
12/8/92			
3/15/93			
6/15/93			
12/28/93			
3/9/94			
9/22/94		2.3	0.4
12/12/94	1.0		
3/1/95			
5/24/95	0.2		
9/19/95			

MW104S Continued

DATE	PCE	TCE	1,2 DCE
11/27/95			
2/13/96			
9/17/96			
11/18/96			
2/12/97			
9/2/97			
2/23/98			
8/25/98			
2/1/99			
6/3/99			
3/16/00			
4/6/00			
8/20/01			
10/11/01			
3/13/03			
5/8/03			
7/9/03			
4/13/04			
8/4/04			
11/23/04			
2/17/05			
4/7/05			
7/19/05			
10/25/05			
1/24/06			
5/23/06			
7/25/06			
11/13/06			
1/30/07			
5/17/07			
10/2/07			
3/12/08			
5/15/08			
8/5/08			

MW105S
SCREEN: 27-49 (CONFINED); BORING DEPTH: 62
LOW PERMEABILITY DEPOSITS: 21-30
DATUM: 773.06, GROUND EL: 771.20, EASTING: 1510159.565, NORTHING: 656622.45
LOCATION: OFF N BOUND RT 4, ADJACENT TO HYDROBOWL LAKE
RECEPTORS: EASTWOOD PARK PWs UNDER DRY CONDITIONS
FLOW DIRECTION: GENERALLY TO THE WSW
WATER LEVELS (12/87-1/05): AVG=19.39 (753.67), RANGE=15.90-24.95 (757.16 (12/90)-748.11 (12/89))

DATE	PCE	TCE	TOL
11/22/86			
11/23/86			
3/19/87			
6/2/88			
9/10/90			
3/21/90			
12/5/90			
2/26/91			
6/13/91			
9/12/91			
12/10/91			
3/17/92			
6/11/92			
9/1/92			
12/7/92			
3/11/93			
12/9/93			
3/9/94		3.2	
9/22/94			
12/12/94	0.6		
3/2/95	0.3		
5/24/95			
9/19/95			
12/11/95			
2/13/96			
11/18/96			
5/29/97			
9/2/97			
2/24/98			
9/3/98			
2/4/99			
4/6/00			
8/8/00			
11/9/00			
8/20/01			
4/16/02			
8/21/02			
10/30/02			
5/8/03			
4/13/04			
8/4/04			
2/17/05			
4/7/05			
7/19/05			0.3
10/25/05			
1/24/06			
5/11/06			
7/25/06			
11/13/06			

MW105S Continued

DATE	PCE	TCE	TOL
1/30/07			
5/17/07			
8/20/07			
11/8/07			
5/15/08			
8/5/08			

MW105D

SCREEN: 117-139 (CONFINED); BORING DEPTH: 142
LOW PERMEABILITY DEPOSITS: 0-10, 21-30, 45-61, 71-127, 140-142+
DATUM: 773.14, GROUND EL: 771.20, EASTING: 1510142.143, NORTHING: 656613.141
LOCATION: OFF N BOUND RT 4, ADJACENT TO HYDROBOWL LAKE
RECEPTORS: EASTWOOD PARK PWs UNDER DRY CONDITIONS
FLOW DIRECTION: GENERALLY TO THE WSW
WATER LEVELS (12/87-1/05): AVG=40.29 (732.85), RANGE=16.25-54.20 (756.89 (6/91)-718.74 (9/03))

DATE	PCE	BEN	TOL	XY
11/22/86				
11/23/86				
3/19/87				
12/10/87				
5/4/89				
8/9/89				
3/21/90				
9/11/90				
12/5/90				
2/25/91				
6/13/91				
9/12/91		0.5	1.0	1.4
12/10/91				
3/17/92				
6/11/92				
9/1/92				
12/7/92				
3/11/93				
6/17/93				
12/9/93				
3/9/94				
9/22/94				
12/12/94	1.0			
3/2/95	0.5			
5/24/95	2.0			
9/19/95				
12/11/95				
2/13/96				
9/18/96				
11/18/96				
9/2/97				
2/24/98				
9/3/98				
2/1/99				
4/6/00				
8/8/00				
11/9/00				
4/16/02				
8/21/02				
10/30/02				

MW105D Continued

DATE	PCE	BEN	TOL	XY
5/8/03				
4/13/04				
8/4/04				
2/17/05				
4/7/05				
7/19/05				
10/25/05				
1/24/06				
5/11/06				
7/25/06				
11/13/06				
1/30/07				
5/17/07				
8/20/07				
11/8/07				
5/15/08				
8/5/08				

MW106S

SCREEN: 36-58 (CONFINED); BORING DEPTH: 62
LOW PERMEABILITY DEPOSITS: 21-31
DATUM: 776.48, GROUND EL: 774.50, EASTING: 1513258.117, NORTHING: 657977.384
LOCATION: OFF N BOUND RT 4, ADJACENT TO EASTWOOD LAKE (EAST)
RECEPTORS: ESTWD PK & W ROHRERS PWs POSSIBLE
FLOW DIRECTION: SOMEWHAT VARIABLE TO THE WSW
WATER LEVELS (12/87-1/05): AVG=18.68 (757.80), RANGE=10.8-31.75 (765.68 (12/90)-744.73 (12/89))

DATE	TCE	PCE	1,2 DCE
12/12/86			
3/19/87	0.9		
8/26/87	0.6		
2/6/88			
8/31/88	0.7		
8/8/89	0.9		
8/15/89	0.9		
2/21/90	1.4		
9/17/90	0.7		
11/8/90	0.9		
2/7/91	0.7		
5/29/91	0.7		
8/29/91	0.7		
11/19/91	1.0		
2/10/92	0.9		
5/26/92	0.6		
8/26/92	0.6		
12/1/92	0.7		
2/8/93	0.4		
8/24/93	0.4		
12/8/93	0.5		
9/19/94	0.7		1.0
12/8/94	0.6	0.8	
5/23/95	0.5	0.4	
9/12/95	0.6		
11/14/95			
7/16/96	0.6		
11/11/96	0.5		
2/10/97			

MW106S Continued

DATE	TCE	PCE	1,2 DCE
5/19/97	0.7		
8/20/97	0.6		
2/18/98	0.6		
9/1/98	0.5		
1/6/99	0.5		
1/26/99	0.8	2.4	
5/18/99	0.4		
7/22/99	0.5		
2/20/01	0.5		
9/12/01	0.4		
10/30/01	0.3		
4/18/02	0.4		
10/23/02		0.4	
4/8/03	0.4		
2/3/04	0.3		
8/2/04			
10/11/04			
5/5/05	0.3		
7/20/05	0.3		
10/24/05	0.4		
1/10/06	0.3		
4/11/06	0.5	1.2	
10/17/06			
1/24/07			
6/25/07			
7/26/07			
11/1/07			
1/28/08			
5/14/08			
7/22/08			
10/8/08			
9/21/09			
3/29/10			

MW106D

SCREEN: 106-117 (CONFINED); BORING DEPTH: 150
LOW PERMEABILITY DEPOSITS: 23-36, 62-70, 80-107, 116-120, BR @ 120
DATUM: 776.13, GROUND EL: 774.30, EASTING: 1513272.458, NORTHING: 657989.584
LOCATION: OFF N BOUND RT 4, ADJACENT TO EASTWOOD LAKE (EAST)
RECEPTORS: ESTWD PK & W ROHRERS PWs POSSIBLE
FLOW DIRECTION: SOMEWHAT VARIABLE TO THE WSW
WATER LEVELS (12/87-1/05): AVG=42.61 (733.52), RANGE=16.70-63.10 (759.43 (9/92)-713.03 (1/97))

DATE	1,1,1 TCA	PCE	TCE
12/12/86			0.5
3/19/87			
11/8/90			
2/7/91			
5/29/91			
8/29/91			
11/19/91			
2/10/92			
5/26/92			
8/26/92			
12/1/92			
2/8/93			
8/24/93			

MW106D Continued

DATE	1,1,1 TCA	PCE	TCE
9/19/93			
5/23/95		0.4	
9/12/95			
11/14/95			
2/6/96			
7/16/96			
11/11/96			
2/10/97			
5/19/97	0.3		
8/10/97	0.3		
2/18/98	0.3		
9/1/98	0.4		
1/6/99	0.3		
5/18/99	0.4		
7/22/99	0.4		
4/10/00	0.4		
2/20/01			
9/12/01	0.3		
10/30/01	0.4		
4/18/02	0.3		
10/23/02	0.4		
4/8/03	0.4		
2/3/04	0.4		
8/2/04			
10/11/04			
5/5/05	0.3		
7/20/05			
10/24/05			
1/10/06			
4/11/06			
7/19/06			
10/17/06			
1/24/07			
6/25/07			
7/26/07			
11/1/07			
1/28/08			
5/14/08			
7/22/08			
10/8/08			
9/21/09			
3/29/10			

Appendix G

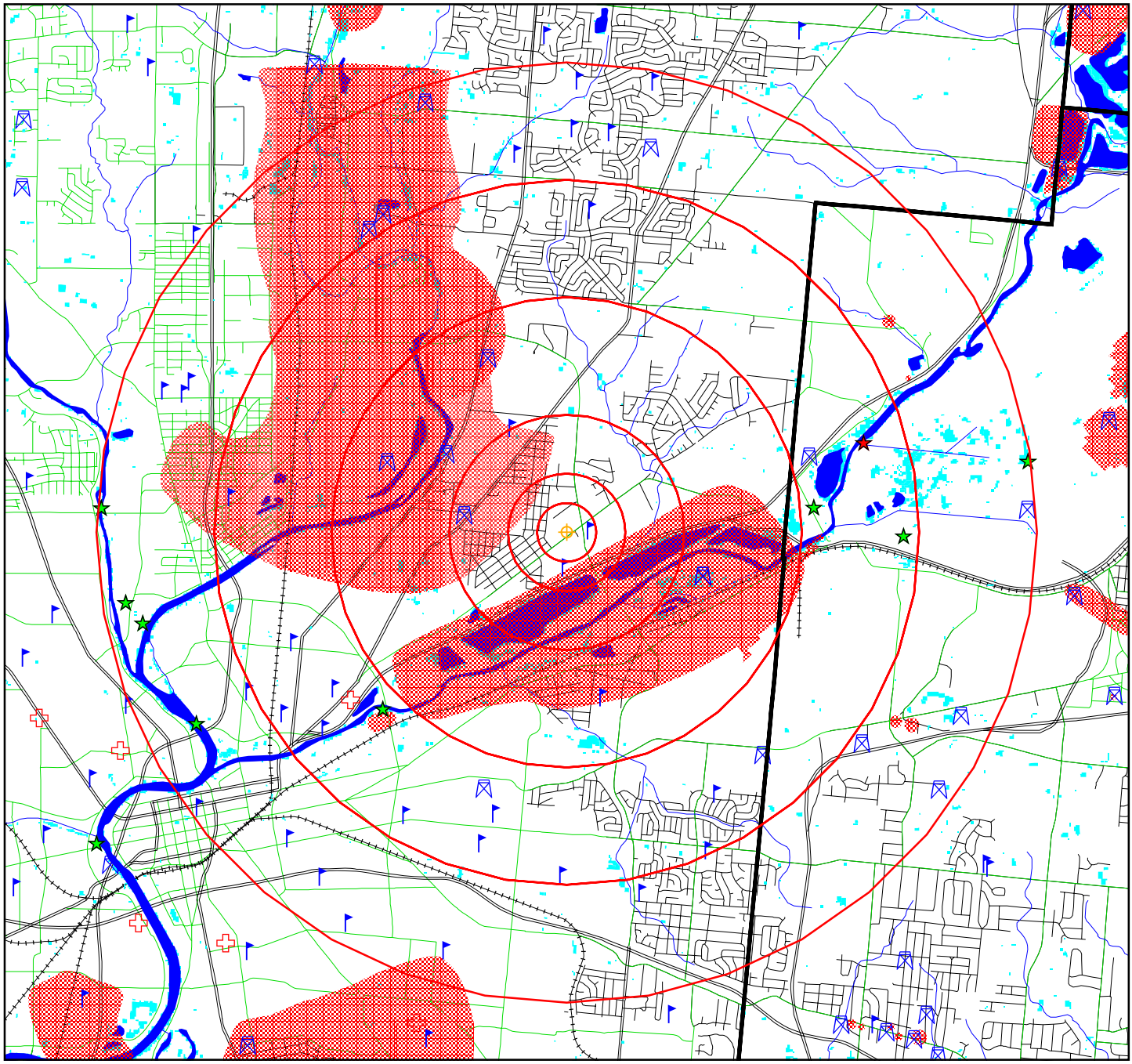
GIS Maps and Tables

Division of Emergency & Remedial Response

GEOGRAPHIC INFORMATION SYSTEM 4-MILE RADIUS MAP

Montgomery County

Mullins Rubber Products



Site
School
Hospital
Public Surface Water Systems
Public Ground Water Systems
US Endangered/Threatened Species
Ohio Endangered/Threatened Species

Wetland Area
Lakes & Ponds
Wellhead Protection Area
Limit of Radius From Site
County Boundaries

Rivers & Streams
Railroad
State and Federal Highways
Local Roads
Municipal Roads

N

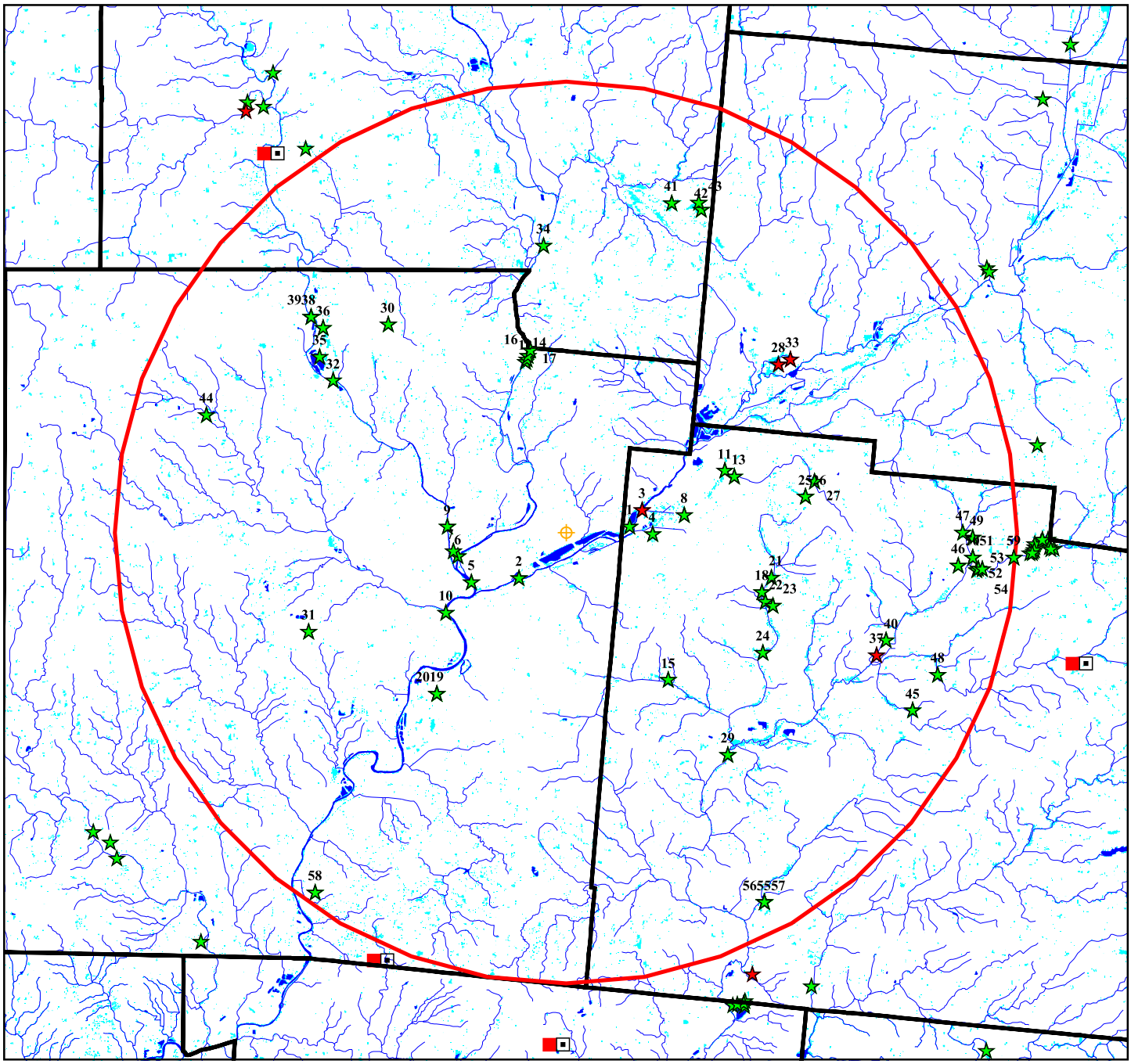
2 0 2 Miles

Division of Emergency & Remedial Response

GEOGRAPHIC INFORMATION SYSTEM 15-MILE RADIUS MAP

NATURAL HERITAGE DATA

Mullins Rubber Products



Mullins Rubber Products

Ground Water Systems

ID	PWS_ID	SYS_TYPE	NAME	ADDRESS	CITY	STATE	DISTANCE	POPULATION
~~1~~	5746012	Non-Community/Transient	FIRST FREE WILL BAPTIST	1661 BRANDT PIKE	DAYTON	OH	0.8855	150
2	5700722	Community	DAYTON, CITY OF-OTTAWA P	3210 CHUCK WAGNER LANE	DAYTON	OH	1.2163	236,000
4	5702012	Community	HUBER HEIGHTS-PLANT #1	P.O. BOX 24099	HUBER HEIGHTS	OH	1.2213	29,250
~~5~~	5734812	Non-Community/Transient	HUNGARIAN E & R CHURCH	4457 TROY PIKE	DAYTON	OH	1.6236	250
6	5700712	Community	DAYTON, CITY OF-MIAMI PL	3210 CHUCK WAGNER LANE	DAYTON	OH	1.6421	184,000
7	2943512	Non-Community/Transient	DAYTON GYMNASTIC CLUB PA	4301 STATE ROUTE 4	DAYTON	OH	2.1597	300
8	5745612	Non-Community/Transient	BLESSED HOPE BAPTIST CH.	4461 FISHBURG ROAD	HUBER HEIGHTS	OH	2.2948	50
9	5736012	Non-Community/Transient	ORBIT INN/ANIMAL CASTLE	6030 AIRWAY ROAD	DAYTON	OH	2.5237	45
10	5737112	Non-Community/Transient	VOITURE 40-8, 34	4214 POWELL ROAD	DAYTON	OH	3.0740	30
11	2944912	Non-Community/Transient	W.O. WRIGHT'S	3979 COLONEL GLENN HWY.	FAIRBORN	OH	3.0856	75
12	5731212	Non-Community/Transient	CAPT JOHN C. POST LODGE	4275 POWELL ROAD	DAYTON	OH	3.1229	200
13	2902712	Community	HUBER HEIGHTS-PLANT #3	P.O. BOX 24099	HUBER HEIGHTS	OH	3.3449	400
14	2956203	Non-Community/Non-Transient	GREENE COUNTY - FAIRBORN	1122 BEAVER VALLEY ROAD	BEAVERCREEK	OH	3.7010	130
15	5746312	Non-Community/Transient	FELLOWSHIP ALLIANCE CHAP	4585 CHAMBERSBURG ROAD	HUBER HEIGHTS	OH	3.8483	35
16	2951112	Non-Community/Transient	SUBMARINE HOUSE	3899 GERMANY LANE	BEAVERCREEK	OH	3.8514	80
17	2955012	Non-Community/Transient	WPAFB MARKSMANSHIP FACIL	88 ABW/EM 5490 PEARSON ROAD	WRIGHT-PATTERSON	OH	3.9212	50

Mullins Rubber Products

2000 Census Data

RADIUS	TOTAL	WHITE	BLACK	INDIAN	ASIAN	HAWAII_PAC	OTHER
3.00 - 4.00	51,544	44,171	5,013	160	846	25	1,329
2.00 - 3.00	37,833	33,713	2,387	121	439	26	1,147
1.00 - 2.00	15,323	12,505	1,858	48	371	9	532
0.50 - 1.00	3,991	3,586	255	10	50	2	88
0.25 - 0.50	1,297	1,214	47	4	10	0	23
0.00 - 0.25	423	406	7	2	1	0	6
TOTALS	110,411	95,595	9,567	345	1,717	62	3,125

Mullins Rubber Products

Natural Heritage Data

ID	STATUS	DISTANCE	SCIENTIFIC NAME	COMMON NAME
1	State Endangered	2.1065	SISTRURUS CATENATUS	EASTERN MASSASAUGA
2	State Endangered	2.1735	GOMPHUS EXTERNUS	PLAINS CLUBTAIL
3	Federally Endangered	2.6325	MYOTIS SODALIS	INDIANA BAT
4	State Endangered	2.8599	SISTRURUS CATENATUS	EASTERN MASSASAUGA
5	State Threatened	3.5509	UNIOMERUS TETRALASMUS	PONDHORN
6	State Threatened	3.6966	DESCURAINIA PINNATA	TANSY MUSTARD
7	State Endangered	3.8067	PENSTEMON LAEVIGATUS	SMOOTH BEARD-TONGUE
8	State Endangered	3.9671	PAPAIPEMA BEERIANA	BEER'S NOCTUID
9	State Endangered	3.9719	EPIOBLASMA TRIQUETRA	SNUFFBOX
10	State Threatened	4.7987	NYCTANASSA VIOLACEA	YELLOW-CROWNED NIGHT-HERON
11	State Threatened	5.6567	BARTRAMIA LONGICAUDA	UPLAND SANDPIPER
12	State Threatened	5.8646	VIBURNUM MOLLE	SOFT-LEAVED ARROW-WOOD
13	State Threatened	5.8913	CAREX MESOCHOREA	MIDLAND SEDGE
14	State Threatened	5.9246	PENSTEMON PALLIDUS	DOWNY WHITE BEARD-TONGUE
15	State Threatened	5.9412	CLEMMYS GUTTATA	SPOTTED TURTLE
16	State Threatened	6.0294	VERATRUM WOODII	WOOD'S-HELLEBORE
17	State Threatened	6.2001	VERATRUM WOODII	WOOD'S-HELLEBORE
18	State Threatened	6.7853	CLONOPHIS KIRTLANDII	KIRTLAND'S SNAKE
19	State Endangered	6.8607	MUHLENBERGIA CUSPIDATA	PLAINS MUHLENBERGIA
20	State Threatened	6.8607	DRABA REPTANS	CAROLINA WHITLOW-GRASS
21	State Threatened	6.9703	CLONOPHIS KIRTLANDII	KIRTLAND'S SNAKE
22	State Threatened	7.0020	SELAGINELLA ECLIPES	MIDWEST SPIKE-MOSS
23	State Threatened	7.2828	CLONOPHIS KIRTLANDII	KIRTLAND'S SNAKE
24	State Threatened	7.6510	CLONOPHIS KIRTLANDII	KIRTLAND'S SNAKE
25	State Threatened	8.0425	SELAGINELLA ECLIPES	MIDWEST SPIKE-MOSS
26	State Threatened	8.0425	TRIGLOCHIN MARITIMUM	SEASIDE ARROW-GRASS
27	State Threatened	8.4327	SELAGINELLA ECLIPES	MIDWEST SPIKE-MOSS
28	Federally Threatened	9.0109	PLATANTHERA LEUCOPHAEA	PRAIRIE FRINGED ORCHID
29	State Endangered	9.1189	EPIOBLASMA TRIQUETRA	SNUFFBOX
30	State Threatened	9.1316	BARTRAMIA LONGICAUDA	UPLAND SANDPIPER
31	State Threatened	9.1814	CLONOPHIS KIRTLANDII	KIRTLAND'S SNAKE
32	State Endangered	9.2724	EPIOBLASMA TRIQUETRA	SNUFFBOX
33	Federally Threatened	9.4290	PLATANTHERA LEUCOPHAEA	PRAIRIE FRINGED ORCHID
34	State Threatened	9.5945	VERATRUM WOODII	WOOD'S-HELLEBORE
35	State Threatened	10.0863	LIPOCARPHA MICRANTHA	DWARF BULRUSH
36	State Threatened	10.5890	ARABIS HIRSUTA VAR ADPRESSIPILIS	SOUTHERN HAIRY ROCK CRESS
37	Federally Endangered	11.0910	PLEUROBEMA CLAVA	CLUBSHELL
38	State Endangered	11.1394	VILLOSA FABALIS	RAYED BEAN
39	State Endangered	11.1394	EPIOBLASMA TRIQUETRA	SNUFFBOX
40	State Threatened	11.2074	TRUNCILLA DONACIFORMIS	FAWNSFOOT
41	State Threatened	11.5257	TRIGLOCHIN MARITIMUM	SEASIDE ARROW-GRASS
42	State Threatened	11.6507	UTRICULARIA INTERMEDIA	FLAT-LEAVED BLADDERWORT
43	State Threatened	11.8330	CAREX RETROFLEXA VAR RETROFLEXA	REFLEXED SEDGE
44	State Threatened	12.6069	ORCONECTES SLOANII	SLOAN'S CRAYFISH
45	State Threatened	12.9433	SELAGINELLA ECLIPES	MIDWEST SPIKE-MOSS
46	State Threatened	13.0741	ORYZOPSIS RACEMOSA	MOUNTAIN-RICE
47	State Threatened	13.1795	ASPLENIUM RUTA-MURARIA	WALL-RUE
48	State Threatened	13.2187	EXOGLOSSUM LAURAE	TONGUETIED MINNOW
49	State Threatened	13.5031	TRIPHORA TRIANTHOPHORA	THREE-BIRDS ORCHID

Mullins Rubber Products

Natural Heritage Data

ID	STATUS	DISTANCE	SCIENTIFIC NAME	COMMON NAME
50	State Threatened	13.5314	ARABIS HIRSUTA VAR ADPRESSIPILIS	SOUTHERN HAIRY ROCK CRESS
51	State Threatened	13.5314	CAREX RETROFLEXA VAR RETROFLEXA	REFLEXED SEDGE
52	State Threatened	13.7044	EXOGLOSSUM LAURAE	TONGUETIED MINNOW
53	State Threatened	13.7444	CALAMINTHA ARKANSANA	LIMESTONE SAVORY
54	State Threatened	13.8785	MATELEA OBLIQUA	ANGLE-POD
55	State Threatened	13.9284	CLEMMYS GUTTATA	SPOTTED TURTLE
56	State Threatened	13.9284	SELAGINELLA ECLIPES	MIDWEST SPIKE-MOSS
57	State Threatened	13.9284	CALAMINTHA ARKANSANA	LIMESTONE SAVORY
58	State Endangered	14.5847	JUNCUS INTERIOR	INLAND RUSH
59	State Threatened	14.9043	ASPLENIUM RUTA-MURARIA	WALL-RUE

Appendix D

Contract Required Quantitation Limits

Table 1. Target Compound List (TCL) and Contract Required Quantitation Limits (CRQLs) for SOM01.1*

	Quantitation Limits				
	Trace Water by SIM (µg/L)	Trace Water (µg/L)	Low Water (µg/L)	Low Soil (µg/kg)	Med. Soil (µg/kg)
VOLATILES					
1. Dichlorodifluoromethane		0.50	5.0	5.0	250
2. Chloromethane		0.50	5.0	5.0	250
3. Vinyl Chloride		0.50	5.0	5.0	250
4. Bromomethane		0.50	5.0	5.0	250
5. Chloroethane		0.50	5.0	5.0	250
6. Trichlorofluoromethane		0.50	5.0	5.0	250
7. 1,1-Dicholoroethene		0.50	5.0	5.0	250
8. 1,1,2-Trichloro-1,2,2-trifluoroethane		0.50	5.0	5.0	250
9. Acetone		5.0	10	10	500
10. Carbon Disulfide		0.50	5.0	5.0	250
11. Methyl acetate		0.50	5.0	5.0	250
12. Methylene chloride		0.50	5.0	5.0	250
13. trans-1,2-Dichloroethene		0.50	5.0	5.0	250
14. Methyl tert-butyl ether		0.50	5.0	5.0	250
15. 1,1-Dichloroethane		0.50	5.0	5.0	250
16. cis-1,2-Dichloroethene		0.50	5.0	5.0	250
17. 2-Butanone		5.0	10	10	500
18. Bromochloromethane		0.50	5.0	5.0	250
19. Chloroform		0.50	5.0	5.0	250
20. 1,1,1-Trichloroethane		0.50	5.0	5.0	250
21. Cyclohexane		0.50	5.0	5.0	250
22. Carbon tetrachloride		0.50	5.0	5.0	250
23. Benzene		0.50	5.0	5.0	250
24. 1,2-Dichloroethane		0.50	5.0	5.0	250
25. 1,4-Dioxane	2.0	20	100	100	5000
26. Trichloroethene		0.50	5.0	5.0	250
27. Methylcyclohexane		0.50	5.0	5.0	250
28. 1,2-Dichloropropane		0.50	5.0	5.0	250
29. Bromodichloromethane		0.50	5.0	5.0	250
30. cis-1,3-Dichloropropene		0.50	5.0	5.0	250
31. 4-Methyl-2-pentanone		5.0	10	10	500
32. Toluene		0.50	5.0	5.0	250
33. trans-1,3-Dichloropropene		0.50	5.0	5.0	250
34. 1,1,2-Trichloroethane		0.50	5.0	5.0	250
35. Tetrachloroethene		0.50	5.0	5.0	250
36. 2-Hexanone		5.0	10	10	500
37. Dibromochloromethane		0.50	5.0	5.0	250
38. 1,2-Dibromoethane	0.050	0.50	5.0	5.0	250
39. Chlorobenzene		0.50	5.0	5.0	250

	Quantitation Limits				
	Trace Water by SIM (µg/L)	Trace Water (µg/L)	Low Water (µg/L)	Low Soil (µg/kg)	Med. Soil (µg/kg)
VOLATILES (CON'T)					
40. Ethylbenzene		0.50	5.0	5.0	250
41. o-Xylene		0.50	5.0	5.0	250
42. m, p-Xylene		0.50	5.0	5.0	250
43. Styrene		0.50	5.0	5.0	250
44. Bromoform		0.50	5.0	5.0	250
45. Isopropylbenzene		0.50	5.0	5.0	250
46. 1,1,2,2-Tetrachloroethane		0.50	5.0	5.0	250
47. 1,3-Dichlorobenzene		0.50	5.0	5.0	250
48. 1,4-Dichlorobenzene		0.50	5.0	5.0	250
49. 1,2-Dichlorobenzene		0.50	5.0	5.0	250
50. 1,2-Dibromo-3-chloropropane	0.050	0.50	5.0	5.0	250
51. 1,2,4-Trichlorobenzene		0.50	5.0	5.0	250
52. 1,2,3-Trichlorobenzene		0.50	5.0	5.0	250
SEMIVOLATILES	Low Water by SIM (µg/L)	Low Water (µg/L)	Low Soil by SIM (µg/kg)	Low Soil (µg/kg)	Med. Soil (µg/kg)
53. Benzaldehyde		5.0		170	5000
54. Phenol		5.0		170	5000
55. bis-(2-chloroethyl) ether		5.0		170	5000
56. 2-Chlorophenol		5.0		170	5000
57. 2-Methylphenol		5.0		170	5000
58. 2,2'-Oxybis (1-chloropropane)		5.0		170	5000
59. Acetophenone		5.0		170	5000
60. 4-Methylphenol		5.0		170	5000
61. N-Nitroso-di-n propylamine		5.0		170	5000
62. Hexachloroethane		5.0		170	5000
63. Nitrobenzene		5.0		170	5000
64. Isophorone		5.0		170	5000
65. 2-Nitrophenol		5.0		170	5000
66. 2,4-Dimethylphenol		5.0		170	5000
67. Bis (2-chloroethoxy) methane		5.0		170	5000
68. 2,4-Dichlorophenol		5.0		170	5000
69. Napthalene	0.10	5.0	3.3	170	5000
70. 4-Chloroaniline		5.0		170	5000
71. Hexachlorobutadiene		5.0		170	5000
72. Caprolactam		5.0		170	5000
73. 4-Chloro-3-methylphenol		5.0		170	5000
74. 2-Methylnapthalene	0.10	5.0	3.3	170	5000
75. Hexachlorocyclopentadiene		5.0		170	5000
76. 2,4,6-Trichlorophenol		5.0		170	5000
77. 2,4,5-Trichlorophenol		5.0		170	5000

* For volatiles, quantitation limits for medium soils are approximately 50 times the quantitation limits for low soils. For semivolatile medium soils, quantitation limits are approximately 50 times the quantitation limits for low soils.

Table 1. Target Compound List (TCL) and Contract Required Quantitation Limits (CRQLs) for SOM01.1* (Con't)

	Quantitation Limits				
	Low Water by SIM (µg/L)	Low Water (µg/L)	Low Soil by SIM (µg/kg)	Low Soil (µg/kg)	Med. Soil (µg/kg)
SEMIVOLATILES (CON'T)					
78. 1,1'-Biphenyl		5.0		170	5000
79. 2-Chloronapthalene		5.0		170	5000
80. 2-Nitroaniline		10		330	10000
81. Dimethylphthalate		5.0		170	5000
82. 2,6-Dinitrotoluene		5.0		170	5000
83. Acenaphthylene	0.10	5.0	3.3	170	5000
84. 3-Nitroaniline		10		330	10000
85. Acenaphthene	0.10	5.0	3.3	170	5000
86. 2,4-Dinitrophenol		10		330	10000
87. 4-Nitrophenol		10		330	10000
88. Dibenzofuran		5.0		170	5000
89. 2,4-Dinitrotoluene		5.0		170	5000
90. Diethylphthalate		5.0		170	5000
91. Fluorene	0.10	5.0	3.3	170	5000
92. 4-Chlorophenyl phenyl ether		5.0		170	5000
93. 4-Nitroaniline		10		330	10000
94. 4,6-Dinitro-2-methylphenol		10		330	10000
95. N-Nitrosodiphenylamine		5.0		170	5000
96. 1,2,4,5-Tetrachlorobenzene		5.0		170	5000
97. 4-Bromophenyl phenyl ether		5.0		170	5000
98. Hexachlorobenzene		5.0		170	5000
99. Atrazine		5.0		170	5000
100. Pentachlorophenol	0.20	10	6.7	330	10000
101. Phenanthrene	0.10	5.0	3.3	170	5000
102. Anthracene	0.10	5.0	3.3	170	5000
103. Carbazole		5.0		170	5000
104. Di-n-butylphthalate		5.0		170	5000
105. Fluoranthene	0.10	5.0	3.3	170	5000
106. Pyrene	0.10	5.0	3.3	170	5000
107. Butylbenzylphthalate		5.0		170	5000
108. 3,3'-Dichlorobenzidine		5.0		170	5000
109. Benzo(a)anthracene	0.10	5.0	3.3	170	5000
110. Chrysene	0.10	5.0	3.3	170	5000
111. Bis(2-ethylhexyl)phthalate		5.0		170	5000
112. Di-n-octylphthalate		5.0		170	5000
113. Benzo(b)fluoranthene	0.10	5.0	3.3	170	5000
114. Benzo(k)fluoranthene	0.10	5.0	3.3	170	5000

	Quantitation Limits				
	Low Water by SIM (µg/L)	Low Water (µg/L)	Low Soil by SIM (µg/kg)	Low Soil (µg/kg)	Med. Soil (µg/kg)
SEMIVOLATILES (CON'T)					
115. Benzo(a)pyrene	0.10	5.0	3.3	170	5000
116. Indeno(1,2,3-cd)pyrene	0.10	5.0	3.3	170	5000
117. Dibenzo(a,h)anthracene	0.10	5.0	3.3	170	5000
118. Benzo(g,h,i)perylene	0.10	5.0	3.3	170	5000
119. 2,3,4,6-Tetrachlorophenol		5.0		170	5000
PESTICIDES	**Water (µg/L)**			**Soil (µg/kg)**	
120. alpha-BHC	0.050			1.7	
121. beta-BHC	0.050			1.7	
122. delta-BHC	0.050			1.7	
123. gamma-BHC (Lindane)	0.050			1.7	
124. Heptachlor	0.050			1.7	
125. Aldrin	0.050			1.7	
126. Heptachlor epoxide	0.050			1.7	
127. Endosulfan I	0.050			1.7	
128. Dieldrin	0.10			3.3	
129. 4,4'-DDE	0.10			3.3	
130. Endrin	0.10			3.3	
131. Endosulfan II	0.10			3.3	
132. 4-4'-DDD	0.10			3.3	
133. Endosulfan sulfate	0.10			3.3	
134. 4-4'-DDT	0.10			3.3	
135. Methoxychlor	0.50			17	
136. Endrin ketone	0.10			3.3	
137. Endrin aldehyde	0.10			3.3	
138. alpha-Chlordane	0.050			1.7	
139. gamma-Chlordane	0.050			1.7	
140. Toxaphene	5.0			170	
AROCLORS	**Water (µg/L)**			**Soil (µg/kg)**	
141. Aroclor-1016	1.0			33	
142. Aroclor-1221	1.0			33	
143. Aroclor-1232	1.0			33	
144. Aroclor-1242	1.0			33	
145. Aroclor-1248	1.0			33	
146. Aroclor-1254	1.0			33	
147. Aroclor-1260	1.0			33	
148. Aroclor-1262	1.0			33	
149. Aroclor-1268	1.0			33	

* For volatiles, quantitation limits for medium soils are approximately 50 times the quantitation limits for low soils. For semivolatile medium soils, quantitation limits are approximately 30 times the quantitation limits for low soils.

Table 1. Inorganic Target Analyte List and Contract Required Quantitation Limits (CRQLs)

Analyte	ICP-AES CRQL for Water (µg/L)	ICP-AES CRQL for Soil (mg/kg)	ICP-MS CRQL for Water (µg/L)
1. Aluminum	200	20	--
2. Antimony	60	6	2
3. Arsenic	10	1	1
4. Barium	200	20	10
5. Beryllium	5	0.5	1
6. Cadmium	5	0.5	1
7. Calcium	5000	500	- -
8. Chromium	10	1	2
9. Cobalt	50	5	1
10. Copper	25	2.5	2
11. Iron	100	10	- -
12. Lead	10	1	1
13. Magnesium	5000	500	- -
14. Manganese	15	1.5	1
15. Mercury	0.2	0.1	- -
16. Nickel	40	4	1
17. Potassium	5000	500	- -
18. Selenium	35	3.5	5
19. Silver	10	1	1
20. Sodium	5000	500	- -
21. Thallium	25	2.5	1
22. Vanadium	50	5	5
23. Zinc	60	6	2
24. Cyanide	10	2.5	- -